



**RESPONSE TO:**

**REQUEST FOR QUALIFICATIONS  
REMEDATION SERVICES  
INDIANA FINANCE AUTHORITY**

**PETROLEUM REMEDIATION GRANT**

**NOVEMBER 2, 2006**

**Due Date: November 3, 2006 12:00 P.M. (Noon)**

**Submitted by:**

**ENVIRONMENTAL MANAGEMENT CONSULTANTS, INC.**

**427 Main Street, Evansville, Indiana 47708**

**(812) 424-7768**

**FAX (812) 424-7797**

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## STATEMENT OF INTEREST

Environmental Management Consultants, Inc. (EMC) hereby expresses an interest in providing technical services to local political subdivisions for Brownfield Petroleum Remediation Grant (PRG) funding as presented in the Indiana Finance Authority (IFA) Request for Qualifications, released October 19, 2006. As we understand, the first phase is an assessment to identify political subdivisions that meet the eligibility requirements which also contain petroleum-contaminated brownfield sites that would qualify for PRG funding. The second phase includes removal of storage tank systems and remediation of petroleum contamination to facilitate future redevelopment.

Environmental Management Consultants, Inc. is familiar with the scope of services requested, and we feel uniquely qualified to provide these services. We have gained significant experience with similar types of projects during our eighteen years of doing business in the state of Indiana. In fact, during 2004, we successfully completed the first Petroleum Release Grant Incentive (PRGI) project in the state of Indiana converting the Evansville Kenny Kent brownfield to a shovel ready site.

Our approach to facilitate the aggressive remediation and redevelopment desired by this initiative is to form a collaborative partnership with several of the state's leading environmental, engineering and economic development firms. A memorandum of understanding has been established with the firms of Bernardin Lochmuehler Associates, FC Tucker Realty and WTH Technology. This position has served us well in the past as each of the partners brings certain experience and expertise to the project that might otherwise be lacking from the other environmental consulting firms. We feel that the total package of services provided through our proposal will allow IFA to accomplish the desired goal and mission of encouraging and assisting investment in the redevelopment of brownfield properties by helping communities via technical and financial assistance to identify and mitigate environmental barriers that impede local economic growth.



Information pertaining to EMC and its collaborative partnership as it relates to the scope of services is presented in the accompanying statement of qualifications.

**1. GENERAL INFORMATION**

- (a) **Name and title of Individual(s) designated as the point(s) of contact for the firm, including business mailing address, fax and telephone numbers, and email address(es).**

*Environmental Management Consultants, Inc. (EMC)*  
427 Main Street  
Evansville, Indiana 47708  
(812) 424-7768 FAX (812) 424-7797  
emc@emcevv.com www.emcevv.com

The principle point of contact at EMC for information related to this qualifications statement is:

***Tom Effinger, CHMM***  
*Vice President*  
teffinger@emcevv.com

- (b) **A brief description of the history of firm, its capabilities, and how its selection would benefit this PRG initiative and the IFA.**

Environmental Management Consultants, Inc. (EMC) is a mature environmental consulting firm commencing its eighteenth year of operation. We provide professional services to major regional financial, institutional, industrial, legal, and governmental organizations. EMC is dedicated to providing superior environmental services through the conscientious application of diversified scientific and environmental disciplines. The company has a full compliment of experienced environmental professionals in the disciplines of engineering, geology, biology, chemistry and industrial hygiene, with designations of certified hazardous materials managers (CHMM), professional engineer (PE), licensed professional geologist (PG), certified industrial hygienist (CIH), PhD's and CPA. This professional staff is supported by a dedicated team of technicians, draftsmen, clerical and administrative personnel.



The company headquarters are centrally located in the downtown Evansville, Indiana; Main Street redevelopment district. Our renovated building comprises 22,500 square feet of office space and training facilities. Our offices are fully computerized with software applications in word processing; CAD; spreadsheets; modeling; government regulations; health and safety plans (HASP); project management; time and expense tracking, and accounting. Additionally, we utilize a 1,800 square foot field operations facility also located in Evansville, Indiana.

Environmental Management Consultants, Inc. provides our clients with complete environmental services by coupling our professional expertise with carefully selected, subcontracted specialty service companies (i.e. asbestos abatement, excavation, trucking, analytical services, etc.). As environmental consultant to the specific project, EMC insures that appropriate subcontractor certifications, accreditations, training and insurance requirements are met before work commences and maintains both subcontractor agreements and certificates of insurance on file.

**Environmental Management Consultants, Inc.** has found it advantageous to separate certain environmental aspects of our business. Environmental Management Consultants, Inc. is the original corporation of the Tri-State's premier environmental consulting group. The company's primary service areas include Phase I and II Environmental Site Assessments, Corrective Action Plans, landfill investigation and design services, comprehensive asbestos related services, indoor air quality, industrial compliance and hygiene, water quality management, under/above ground storage tank services, training and other environmental consulting services. Over the past eighteen years, Environmental Management Consultants, Inc. has acquired extensive experience in successfully managing and completing projects involving assessment and remediation of petroleum products. EMC has previously worked with IDEM, INDOT, IFA and the EPA on many site cleanup and assessment projects and is familiar with the regulatory requirements for successful remediation of contaminated sites, including LUST and ELTF, Indiana spill rule, CERCLA, RCRA and state mandated/voluntary clean-up sites utilizing RISC guidelines.



We provide administrative, technical and management support functions for the other affiliated member companies in the consulting group. This group includes:

**Elite Environmental Services, Inc.** (Elite) established in 1997 as a corporation between the management of **EMC and Industrial Contractors**. Elite offers union labor field services such as asbestos and lead-based paint abatement, industrial cleaning, 24 Hr. emergency response and safety training.

**Air Quality Services, LLC (AQS)** established in 1998 as a joint venture company between **Vectren Corporation and EMC**. Air Quality Services, as the name implies, is specifically dedicated to providing air-related services, including permitting, ambient air monitoring, source emission testing, dispersion modeling, support services and general compliance consulting.

**Consortium of Environmental Risk Management (CERM)** established in 1999 to provide consulting services to develop and evaluate environmental fate, toxicology and review of new and proposed chemicals, import/export requirements, support and compliance with international regulations for the registration of new and existing chemicals, including those for the European Union, Japan and Canada.

**Custom Contractors of Evansville (CCOE)** established in 1987 as a real estate holding company and brownfield development firm.

Although each of our companies operates independently in specialized areas, our collective resources can be tapped through a single contact source. This unique relationship provides a very broad environmental service area that constitutes an exceptional environmental resource.

We recognize that our firm exceeds the minimum qualifications to be eligible for this IFA Petroleum Release Grant and that we have already been qualified to bid on PRGI projects since 2002. However, for the purposes of this initiative, EMC has assembled a collaborative partnership with the firms **Bernardin Lochmueller and Associates, FC Tucker Commercial**



and **WTH Technology**. Each of these firms is committed to redevelopment of brownfield projects in Indiana and cumulatively, is a resource that can complete the project tasks from site assessment, remediation, planning, financing and future development for multiple regions in the state. The purpose of this collaborative partnership is to aid in the inventory process and more fully evaluate the potential sites for future planning and development. Upon completion of the tasks necessary to utilize these properties, the local political subdivision will be better prepared to move forward with actual redevelopment of the brownfield sites.

**Bernardin, Lochmueller and Associates, Inc. (BLA)** has 25 years experience in planning, engineering, environmental (including GIS development), private development and surveying services. Their involvement in the project would be in land use planning activities, and use of their Indiana Statewide GIS database, as needed.

Their business philosophy is to combine sound planning and engineering balanced by a sound understanding of environmental issues to produce practical and cost effective design for their clients. Bernardin, Lochmueller and Associates, Inc. has earned a reputation for completing quality, cost-effective work, on-time and within budget. The firm is committed to using the best resources available to serve its clients. They have experienced continued growth through the years and have offices in Evansville (Corporate), Indianapolis, and West Lafayette in Indiana, and Maryville in Illinois.

**FC Tucker Commercial** (Tucker) started in 1910 and is the oldest continuous full service real estate company in the region. In 1987, they became affiliated with the state's largest independent real estate brokerage firm, the F.C. Tucker Company Inc. of Indianapolis. In 2004, F.C. Tucker Commercial signed a strategic alliance agreement with Turley Martin Tucker, the largest full service Commercial and Industrial Real Estate firm in the eastern half of the United States. With offices in Indianapolis, St. Louis, Nashville, Kansas City, Cincinnati, Dayton, and Minneapolis they now have the backing of over 900 employees and 400 licensed commercial practitioners with over two billion dollars in annual sales. We have a long term working relationship with this firm whose expertise in commercial and industrial development is unparalleled.



**WTH Technology** (WTH) is a professional grant writing company that specializes in finding and writing grant proposals for political subdivisions. WTH provides comprehensive services necessary to efficiently and effectively manage grant programs. A comprehensive approach will involve development and implementation of policies and procedures for the program activity, coordination of activities with Local, State and Federal agencies, design and operation of a financial management system, maintenance of records required by State and Federal governments, and supervision of contracts awarded in execution of program activities. WTH will additionally act as a liaison between the political subdivision and the funding agencies.

Individually, each of these business are committed to providing services to enhance economic develop with-in the state of Indiana. The added value that this partnership brings to the project is the ability to evaluate sites not only from an environmental perspective, like most consultants, but to be able to analyze statewide information to get a better understanding of the potential for economic growth in each region. When a project is deemed eligible for PRG funding, opportunities for other local, state and federal grant money along with development plans, necessary to complete the goals of brownfield program will have been established. Additional information concerning the qualifications for each of the collaborative partners is included in the other section of this response.

(c) **A brief description of the firm's ability to meet the needs outlined in the Proposed Scope of Work section and the ability to meet the timeframes set forth in the Calendar section.**

Environmental Management Consultants, Inc. is a current member of the Indiana Association of Cities and Towns (IACT) and we regularly meet with local brownfield coordinators, mayors and town and county representatives regarding brownfields. We work one on one with communities in forming plans to clean-up and make productive use of their brownfield properties. These previously established relationships will aid in identifying sites throughout the state for inclusion on the brownfield inventory. During 2005, we presented a technical seminar inviting many leading authorities on the federal and state brownfield grant process. Local, state and federal speakers presented at the conference which was attended by many interested stakeholders in the legal, financial and property development sectors along with many representatives of



municipalities. Additionally, our collaborative partnership including the firm that prepared the original GIS mapping which included brownfield sites for the state of Indiana, a large commercial real estate firm and a grant writing firm provides us with the tools and insight to quickly cover large areas of the state for conducting the inventory and further evaluating the potential sites for economic viability and funding options.

Over the past four (4) years, we have been involved with many of the local political subdivisions in the state working on brownfield Site Assessment Grant Incentive (SAGI), Petroleum Remediation Grant Incentive (PRGI), Community Block Development Grants and the State Revolving Loan fund projects. The redevelopment of brownfield properties boosts the local economy by providing jobs, increasing the tax base, reducing blight and improving residents quality of life by providing cleaner land and water.

A representation of the awarded projects includes state grants for; assessment and investigation of a former UST site (Swanson Nunn Electric {Site #BFD4010002} – Evansville, Indiana), assessment of existing site conditions to determine the need for further investigation (Clements Oil – Petersburg, Indiana), development of a Sampling and Analysis Plan for a former petroleum release site (R&J Refinery {Site #0000008} – Princeton, Indiana), delineation of petroleum related contamination at a LUST site (Heinz Factory – Princeton, Indiana), Corrective Action Plan development for a former LUST site (Alexander Ambulance {Incident #9307115} – Evansville, Indiana), and remediation of the former LUST site (Kenny Kent {Facility ID #16430}– Evansville, Indiana), assessment, investigation, remediation of a former railroad yard (Wansford Yard {IN State Cleanup #0000174} - Vanderburgh County, Indiana). These grants have totaled more than \$700,000.00 to redevelop properties valued in excess of 6.5 million dollars.

Several of these projects involved complete services, such as that requested in the proposed scope of work in this Request for Qualifications. Many of the projects also included some community financial involvement. Additional examples of previous EMC projects documenting experience with all facets of the scope of work may be found in Section 3.



This experience has provided EMC with a comprehensive knowledge of the processes involved with site-specific cleanups. The knowledge gained through our collective experiences at both the field and regulatory levels supplies EMC with the insight needed to effectively evaluate the myriad of processes involved in any specific petroleum site cleanup, including the Risk Integrated System of Closure (RISC) guidance documents. Our environmental services reflect a concerted effort toward obtaining accurate and meaningful information within the limitations of regulatory requirements and budgetary constraint. Our estimates of probable cost for investigations and/or remediation clearly define expected site conditions, and we have amassed an exceptional record of providing these services on time and within budget.

Environmental Management Consultants, Inc. is committed to managing time critical/sensitive projects, and has worked evening shifts, weekends, holidays, and around-the-clock to complete projects in the most effective and timely manner possible. We are proud of our reputation for providing dependable, on-time, accurate, and legally defensible environmental services; a reputation that has served to firmly establish EMC as a key environmental consultant in the Midwest region. Simply put, EMC will do what it takes to get the job done.

Our workload, involving investigative and remediation projects, is expected to be reflective of our historical project engagements. Manpower requirements with respect to environmental services for any specific site are dependent upon many variables, yet EMC's structure allows for considerable flexibility regarding professional staffing and subcontractor services. Several of EMC's key staff members are multi-disciplinary and have the knowledge and expertise to assist in meeting workload fluctuations. Environmental Management Consultants, Inc. also has the capability to employ other qualified associates from the affiliated companies if deemed necessary to meet project deadlines.

We involve the client in the decision making process by maintaining continual communication throughout the project. When required, solutions are developed that can be implemented within budgetary constraints and operational capabilities, and that are consistent with sound environmental practices as well as the clients' objectives.



(d) **Relevant biographical information with respect to the members of the firm who would be assuming primary responsibility for PRG projects.**

EMC is positioned to apply the collective human resources at its main office in Evansville, Indiana. Specifically, the following environmental professionals will be assigned as the key contacts to address IFA projects.

Key Contact	Responsibility
Tom Effinger, CHMM Vice President	Site Assessment, Operational Review, Contracts & Budgets
Tracy McConnell, PE Senior Project Manager	Site Investigation, CAP & Remediation System Design
Mark Phillips, LPG Project Manager	Site Assessment, Investigation, CAP & Remediation
Matt Morton, CHMM Project Manager	Site Assessment, Investigation, CAP & Remediation
Kimberly Dyehouse, Project Manager	Site Assessment, Indoor Air Quality and Industrial hygiene

Collectively, these individuals represent a mature, experienced, and multi-disciplined task force that is capable of fulfilling all of the skill requirements necessary to provide professional, broad-based investigative and remediation services. As previously mentioned, in addition to the listed individuals, EMC has other qualified personnel that can be applied to specific tasks, including inspection and remediation. All EMC project personnel are fully supported by skilled technical and clerical staff. Resumes of the listed individuals are included in Section 6.

Our approach to each job assignment is free of rigid preconceptions. Each project is carefully planned and controlled, and the Project Manager for each job participates in all phases of the effort to ensure successful and timely completion. Our company-wide policy of enhancing staff proficiency through continuing education and professional affiliations ensures that our clients receive services reflecting the most recent regulatory compliance requirements as well as cutting-edge technological expertise. Environmental Management Consultants, Inc. stays current on new regulations with the IDEM and EPA by belonging to mailing lists that provide notifications of updates on rules, regulations, statutes, guidance documents and non-rule policy documents. During the past two years, EMC staff has been in attendance at several training programs,



technical seminars and vendor exhibits sponsored or supported by IDEM. Additionally, we participated in writing the “new” TPH rule (Chapter 8, RISC Technical Guide) and prepared comments for the RISC guidelines by participation in the IDEM Total Petroleum Hydrocarbon Criteria Working Group.

The following is a list of relevant continuing education and training programs attended by EMC personnel within the last two years:

- All Appropriate Inquiry Seminar, EDR, 6-04,
- Current Environmental Issues for Business and Environmental Professionals, Kahn, Dees, Donovan & Kahn, LLP, 9-30-04,
- UST, LUST, ELTF Outreach, IDEM, 10-27-04,
- Analysis, Fate, Environmental and Public Health Effects, and Remediation of Soils, Sediments, and Water, San Diego, California, AEHS, 3-14-05,
- UST Leak Remediation for Consultants and Contractors, IPECA, 11-29-05,
- Midwestern States Risk Assessment Symposium, IDEM, 8-24-06,
- International Science and Engineering Fair Judge, Indianapolis, 5-7-06.

(e) **Narrative discussing of the financial stability and strength of the firm.**

During our eighteen years of providing exceptional environmental services in the state of Indiana, we have been faced with many challenges and have adapted ourselves and our business plan for continued success. To that end, we have developed written standard operating procedures, safety policies and procedures, business continuation plans, contingency plans and emergency action plans to assure uninterrupted services to our clients. Environmental Management Consultants, Inc. has adequate insurance to cover general liability, auto-owners, workers compensation, contractor's liability, and professional liability (errors & omissions and pollution). If requested, IFA, IDEM or any other Indiana state agency may be named as an additional insured on the GL policy. EMC is fully bondable and maintains a reserve \$100,000.00 line of credit. Confidential



financial statements will be provided under Indiana Public Records Act, IC 5-14-3-4(5) if requested.

**Commercial General Liability**

Occurrence Limit ..... \$1,000,000  
General Aggregate Limit ..... \$2,000,000

**Auto-Owners**

Occurrence Limit ..... \$1,000,000  
General Aggregate Limit..... \$1,000,000

**Workers Compensation/Employers Liability**

Each accident ..... \$1,000,000  
Disease policy ..... \$500,000

**Professional Liability (Errors/Omission & Pollution)**

Occurrence Limit ..... \$1,000,000  
General Aggregate Limit..... \$2,000,000

(f) **Narrative discussion on the health and safety practices/programs of the firm, including a description of the firm's safety record for the last five (5) years.**

Safety is of primary importance in our operations. Each employee has the responsibility to make the safety of co-workers and the employee a basic concern. This objective is fundamental to our well being, as well as to the efficient operation of our business.

As helpful as they are, safety rules alone cannot prevent accidents. The indispensable ingredients of a safe working environment are management commitment, a knowledgeable supervisory staff and a conscientious work force, where each individual is dedicated to the principle that accident prevention is an essential part of the planning and efficient execution of every job. Environmental Management Consultants, Inc. management recognizes its responsibility to provide healthful and safe working rules, based upon experience and safety knowledge, and competent working direction.



Every employee has the responsibility to prevent accidents and injuries by observing established working rules, by following the directions of supervisors, by practicing the principles taught in safety training, and by providing ideas on how our safety efforts might be further strengthened. Environmental Management Consultants, Inc. and its employees have the responsibility to comply with all federal, state and local regulations related to safety and health programs.

The objective of the Safety Program is prevention of accidents. An accident is any unplanned and unintended event that disrupts the orderly process of performing work. All accidents, by this definition, result in loss due to job disruption and often involve additional losses due to personal injury, equipment damage, property or material damage, or a combination of one or more of these factors.

Effectiveness of the Accident Prevention Program depends upon the communication, participation, and cooperation of all Management, Supervisors, and Employees in carrying out the following basic procedures:

- Planning all work to minimize personal injury, property damage and loss of productive time.
- Maintain a system for promptly detecting and correcting unsafe practices and conditions.
- Make available and enforce the use of personal protective equipment and mechanical guards.
- Maintain an effective system of equipment and tool inspection and maintenance.
- Investigate all accidents, determine cause and take the necessary corrective action.
- Establish an educational program to maintain interest and cooperation of all levels of employment.
- Compliance with applicable Local, State, and Federal rules and regulations.



The following is the Table of Contents from the EMC Safety Policies, Procedures & Programs Manual. A complete copy of the written manual is available upon request. This program has worked well for EMC in the past. We have not had any recordable injuries or illnesses during the past five (5) years.

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- (g) **Identification of the sub-contractors to be used by the firm in the performance of activities listed in the above Proposed Scope of Work. Please provide a brief description of the firm's prior working relationship with these identified sub-contractors and any other relevant information. If specific sub-contractors cannot be listed by name, please provide a general description of the type of services to be provided through the use of sub-contractors.**

Environmental Management Consultants, Inc. corporate structure is designed to allow for maximum flexibility in addressing environmental concerns. While we are fully equipped to provide environmental assessment and consulting services, we elect to sub-contract those aspects of work that are selective (laboratory analysis, excavation work, trucking, drilling and disposal). We routinely employ a variety of sub-contractor companies for specialized services not performed in-house. Environmental Management Consultants, Inc. feels that this philosophy benefits our clients, as the method of addressing an environmental concern can be selected on the basis of merit, rather than keeping a workforce busy or paying off a piece of equipment.

We endorse the Minority Business Enterprise Participation Plan and INDOT's Disadvantaged Business Enterprise Program, as defined in 49 CFR Part 26. Environmental Management Consultants, Inc., as part of its equal opportunity affirmative action program, solicits statements of interest and bids from disadvantaged business enterprises, as defined in 49 CFR Part 26, for subcontracted services, in order to ensure that disadvantaged business enterprises have the maximum opportunity to compete for and perform contracts. Environmental Management Consultants, Inc. does not discriminate on the basis of race, color, national origin, or sex in the award and performance of contracts.

Normal policy for qualified sub-contracted services is to prepare a specification that outlines the necessary services, an invitation to bid on the project, a walk-through of the project site and an evaluation of the submitted bids. We maintain a sub-contractor agreement on file with every firm it chooses to work with.



The following list of pre-approved sub-contractor companies would be potentially used for this project:

Sub-contractor Name	Service Provided
Elite Environmental Services, Inc.	Asbestos & Lead Based Paint abatement and design services
Consortium of Environmental Risk Management	RISC assessment using non-default approach
Custom Contractors of Evansville	Property acquisition and site management and development
Natural Resources Professionals	Corrective Action plan development
Bernardin, Lochmueller and Associates, Inc.	Site Assessment, planning, engineering and GIS mapping
FC Tucker Commercial	Commercial development feasibility and real estate planning
WTH Technology	Preparation of grant applications
Test America Laboratories	Laboratory Analysis
Pace Analytical Laboratories	Laboratory Analysis
Chase Drilling	Drilling and Geoprobe Services
Hoosier Equipment Services	Excavation and tank closure, system installation
Richardville Drilling	Drilling and Geoprobe Services
Summit Companies	Excavation and tank closure, system installation, vac truck services
K & K Development	Excavation and tank closure, system installation
Focus Contracting	Excavation and tank closure, system installation
Consolidated Recycling	Drum and chemical disposal, vac truck services

## 2. COSTS

### **TASK 1:      SITE IDENTIFICATION**

#### **A.1.    Traveling within Region(s)**

Principal	\$ 50.00/hour
Senior Project Manager	\$ 50.00/hour
Project Manager	\$ 50.00/hour
Staff Project Person	\$ 50.00/hour
Mileage	\$ 0.40/mile

#### **A.2.    Meeting with political subdivisions about potential sites**

Principal	\$ 110.00/hour
Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour

#### **A.3.    Identifying potential sites and providing comprehensive list to Indiana Brownfields Program for review**

Senior Project Manager	\$ 102.00/hour
Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Drafting	\$ 35.00/hour
Word Processing/Clerical	\$ 28.00/hour

### **TASK 2:      STORAGE TANK REMOVAL**

#### **A.1.    Preparation, submittal, and approval of all required notifications, permits, and other required documentation**

Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Word Processing/Clerical	\$ 28.00/hour

#### **A.2.    Preparation and implementation of a mandatory Health and Safety Plan for the removal activities**

Senior Project Manager	\$ 102.00/hour
Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour
Drafting	\$ 35.00/hour
Word Processing/Clerical	\$ 28.00/hour



**A.3. Mobilization and demobilization**

Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour

**A.4. Use of geophysical methods for locating tank(s)**

Senior Project Manager	\$ 102.00/hour
Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour

**A.5. UST/AST removal and disposal, including tank contents, associated product piping/distribution lines, fuel dispenser(s) (if present) and concrete/asphalt pad material**

Senior Project Manager	\$ 102.00/hour
Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour
Drafting	\$ 35.00/hour

**A.6. Removal and disposal of additional soil volume in tank pit and/or vicinity specified in the bid request**

Senior Project Manager	\$ 102.00/hour
Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour
Drafting	\$ 35.00/hour

**A.7. Removal and disposal of all additional soil, groundwater, equipment, and personal protective equipment incidental to the removal and/or tank closure sampling activities.**

Senior Project Manager	\$ 102.00/hour
Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour
Drafting	\$ 35.00/hour



#### **A.8. Excavation backfill**

Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour

#### **A.9. Laboratory analysis**

BETX/MTBE	\$ 39.60/each
TPH-DRO & GRO	\$ 66.00/each
TPH -ERO	\$ 44.00/each
cPAH & Naphthalene	\$ 74.80/each
VOCs	\$ 115.50/each
TPH-GRO	\$ 39.60/each
TPH-DRO	\$ 44.00/each

Level IV Data Package is available with a 20% upcharge.

**B.1. Preparation, submittal and approval by the Indiana Brownfields Program of the report describing removal activities, or other documentation as required by the Indiana Brownfields Program. NOTE: A determination that removal and closure sampling activities were properly completed must be made by the Indiana Brownfields Program to trigger final payment.**

Principal	\$ 110.00/hour
Senior Project Manager	\$ 102.00/hour
Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour
Drafting	\$ 35.00/hour
Word Processing/Clerical	\$ 28.00/hour



**TASK 3:**      **SOIL/GROUNDWATER DELINEATION**

**A.1. Preparation, submittal, and approval of all required notifications, permits, and other required documentation**

Principal	\$ 110.00/hour
Senior Project Manager	\$ 102.00/hour
Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour
Drafting	\$ 35.00/hour
Word Processing/Clerical	\$ 28.00/hour

**A.2. Preparation and implementation of a mandatory Health and Safety Plan for the delineation activities**

Senior Project Manager	\$ 102.00/hour
Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour
Drafting	\$ 35.00/hour
Word Processing/Clerical	\$ 28.00/hour

**A.3. Mobilization and demobilization**

Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour

**A.4. Monitoring well installation and development**

Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour

**A.5. Sampling (using USEPA/IDEM approved protocols)**

Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour



#### **A.6. Laboratory analysis**

BETX/MTBE	\$ 39.60/each
TPH-DRO & GRO	\$ 66.00/each
TPH -ERO	\$ 44.00/each
cPAH & Naphthalene	\$ 74.80/each
VOCs	\$ 115.50/each
TPH-GRO	\$ 39.60/each
TPH-DRO	\$ 44.00/each

Level IV Data Package is available with a 20% upcharge.

**B.1. Preparation, submittal and approval by the Indiana Brownfields Program of the report describing delineation activities or other documentation as required by the Indiana Brownfields Program. NOTE: A determination that soil/groundwater impacts have been fully delineated must be made by the Indiana Brownfields Program to trigger final payment.**

Principal	\$ 110.00/hour
Senior Project Manager	\$ 102.00/hour
Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour
Drafting	\$ 35.00/hour
Word Processing/Clerical	\$ 28.00/hour

#### **TASK 4, TASK 5: SOIL/GROUNDWATER REMEDIATION**

##### **A.1. CAP preparation, submittal, and approval**

Principal	\$ 110.00/hour
Senior Project Manager	\$ 102.00/hour
Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour
Drafting	\$ 35.00/hour
Word Processing/Clerical	\$ 28.00/hour



## **A.2. Mobilization and demobilization**

Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour

## **A.3. Remedial Activities**

### Examples

- i. Installation and startup of physical systems, including Indiana Brownfields Program verification of the same
- ii. soil excavation/disposal considered same as physical system implementation
- iii. risk assessment/modeling considered same as physical system implementation, following preliminary approval by the Indiana Brownfield's Program of the methodology and findings
- iv. monitoring well installation and development

Principal	\$ 110.00/hour
Senior Project Manager	\$ 102.00/hour
Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour
Drafting	\$ 35.00/hour
Word Processing/Clerical	\$ 28.00/hour

## **A.4. Other activities as necessary and/or applicable**

### Examples

- i. removal and disposal of free product
- ii. disposal of other impacted materials associated with remedial activities (purge water, excavated soils from system installation, etc.)

Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour



**A.5. Demonstrate post-implementation contaminant baselines if pre-implementation baseline information is either not available or was acquired more than eight(8) quarters prior to implementation of remedy**

Senior Project Manager	\$ 102.00/hour
Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour
Drafting	\$ 35.00/hour

**B.1 Preparation, submittal and approval by the Indiana Brownfields Program of the progress report(s) demonstrating contaminant reduction. The percentages of reduction and corresponding payment amounts are given below. Indiana Brownfields Program concurrence that reduction percentages have been achieved will be required to trigger payment.**

- i. 65% contaminant reduction (from baseline to cleanup target) 10%
- ii. 85% contaminant reduction (from baseline to cleanup target) 15%
- iii. 100% contaminant reduction (from baseline to cleanup target) 15%

Principal	\$ 110.00/hour
Senior Project Manager	\$ 102.00/hour
Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour
Drafting	\$ 35.00/hour
Word Processing/Clerical	\$ 28.00/hour

**C.1. Preparation, submittal and approval by the Indiana Brownfields Program of the final closure report summarizing remedial activities and contaminant reduction. NOTE: A determination that remedial goals have been achieved must be made by the Indiana Brownfields Program through Issuance of a Site Status Letter (SSL)~ or a No Further Action Letter (NFA) to trigger final payment.**

Principal	\$ 110.00/hour
Senior Project Manager	\$ 102.00/hour
Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour
Drafting	\$ 35.00/hour
Word Processing/Clerical	\$ 28.00/hour



Anticipated costs associated with the following items have been presented in a budget format for a better understanding of how the costs were derived.

(a) Removal of tanks, piping, dispensers < 5,000 gallons

<b><u>EMC PROJECT BUDGET</u></b>				
<b>UST Removal - &lt;5,000 gallons</b>	<b><u>UNIT</u></b>	<b><u># UNITS</u></b>	<b><u>COST/UNIT</u></b>	<b><u>EXTENSION</u></b>
Mobilization/Demobilization	Day	1	\$300.00	\$300.00
Saw Cut Concrete, 4"	Linear feet		\$1.40	
Backfill Soil	Ton	75	\$6.50	\$487.50
Backfill placement/compaction	Ton		\$4.00	
Water Disposal	Gallon		\$0.75	
Haul Backfill to Site	Hour/truck	8	\$70.00	\$560.00
Saw Cut Asphalt	Linear feet		\$2.75	
Backfill Gravel	Ton	20	\$13.00	\$260.00
Asphalt Disposal	Ton		\$33.00	
UST Removal<5,000 gal	Tank	1	\$2,500.00	<u>\$2,500.00</u>
<b>SUBTOTAL</b>				<b><u>\$4,107.50</u></b>

(b) Removal of tanks, piping, dispensers > 5,000 gallons

<b><u>EMC PROJECT BUDGET</u></b>				
<b>UST Removal - &gt;5,000 gallons</b>	<b><u>UNIT</u></b>	<b><u># UNITS</u></b>	<b><u>COST/UNIT</u></b>	<b><u>EXTENSION</u></b>
Mobilization/Demobilization	Day	1	\$300.00	\$300.00
Saw Cut Concrete, 4"	Linear feet		\$1.40	
Backfill Soil	Ton	150	\$6.50	\$975.00
Backfill placement/compaction	Ton		\$4.00	
Water Disposal	Gallon		\$0.75	
Haul Backfill to Site	Hour/truck	16	\$70.00	\$1,120.00
Saw Cut Asphalt	Linear feet		\$2.75	
Backfill Gravel	Ton	20	\$13.00	\$260.00
Asphalt Disposal	Ton		\$33.00	
UST Removal>5,000 gal	Tank	1	\$3,000.00	<u>\$3,000.00</u>
<b>SUBTOTAL</b>				<b><u>\$5,655.00</u></b>



(c) Petroleum impacted soil disposal (trucking and landfill) per cubic yard

- Trucking \$ 4.75-\$ 6.25/ cubic yard
- Landfill Tipping Fees \$27.00-\$29.50/ cubic yard

*The rate is generally negotiated based on the volume of soil delivered. The actual rate will be based on a 10 percent allowable mark-up.*

(d) Petroleum impacted tank contents per gallon (labor, trucking)

- Bulk Tanker \$ 0.75/ gallon
- Drum \$200.00/ 55 gallon drum

(e) Solid waste disposal per ton (concrete, asphalt, general refuse)

- Landfill Tipping Fees \$27.00-\$29.50/ cubic yard

*The rate is generally negotiated based on the volume of waste delivered. The actual rate will be based on a 10 percent allowable mark-up determined by the least expensive combination of cost for acceptable contractors.*

(f) Geoprobe cost per day (include operator)

- Geoprobe \$ 1,200.00/ day

(g) Monitoring well installation per DNR regulations for wells - 20 ft to 30 ft

<b><u>EMC PROJECT BUDGET</u></b>				
<b>Drilling – 30 ft.</b>	<b><u>UNIT</u></b>	<b><u># UNITS</u></b>	<b><u>COST/UNIT</u></b>	<b><u>EXTENSION</u></b>
Mob/demob	Day	1	\$300.00	\$300.00
Soil Borings, Auger Rig, first 15'	Feet	15	\$20.00	\$300.00
Soil Borings, Auger Rig, 16-25'	Feet	10	\$25.00	\$250.00
Soil Borings, Auger Rig, >26'	Feet	5	\$30.00	\$150.00
	Feet		\$6.50	
	Feet		\$8.50	
Decon and Cleaning	5 ft	6	\$10.00	\$60.00
Cutting Holes Concrete/Asphalt	Hole		\$90.00	
Well Materials, 2" well	Feet	30	\$7.00	\$210.00
Well Materials, 4" well	Feet		\$12.00	
Well Materials, 6" well	Feet		\$22.00	
Well Cover	Each	1	\$75.00	\$75.00
<b>SUBTOTAL:</b>				<b>\$1,345.00</b>



(h) Monitoring well installation per DNR regulations for wells < 20 ft

<b><u>EMC PROJECT BUDGET</u></b>				
<b>Drilling – 19 ft.</b>	<b><u>UNIT</u></b>	<b><u># UNITS</u></b>	<b><u>COST/UNIT</u></b>	<b><u>EXTENSION</u></b>
Mob/demob	Day	1	\$300.00	\$300.00
Soil Borings, Auger Rig, first 15'	Feet	15	\$20.00	\$300.00
Soil Borings, Auger Rig, 16-25'	Feet	4	\$25.00	\$100.00
Soil Borings, Auger Rig, >26'	Feet		\$30.00	
Blind Drilling, Auger Rig, Borings logged w/in 5', <50'	Feet		\$6.50	
Blind Drilling, Auger Rig, Borings logged w/in 5', >51'	Feet		\$8.50	
Decon and Cleaning	5 ft	3.8	\$10.00	\$38.00
Cutting Holes Concrete/Asphalt	Hole		\$90.00	
Well Materials, 2" well	Feet	19	\$7.00	\$133.00
Well Materials, 4" well	Feet		\$12.00	
Well Materials, 6" well	Feet		\$22.00	
Well Cover	Each	1	\$75.00	\$75.00
<b>SUBTOTAL:</b>				<b>\$946.00</b>

(i) Monitoring well installation per DNR regulations for wells - 31 ft to 45 ft

<b><u>EMC PROJECT BUDGET</u></b>				
<b>Drilling – 45 ft.</b>	<b><u>UNIT</u></b>	<b><u># UNITS</u></b>	<b><u>COST/UNIT</u></b>	<b><u>EXTENSION</u></b>
Mob/demob	Day	1	\$300.00	\$300.00
Soil Borings, Auger Rig, first 15'	Feet	15	\$20.00	\$300.00
Soil Borings, Auger Rig, 16-25'	Feet	10	\$25.00	\$250.00
Soil Borings, Auger Rig, >26'	Feet	20	\$30.00	\$600.00
Blind Drilling, Auger Rig, Borings logged w/in 5', <50'	Feet		\$6.50	
Blind Drilling, Auger Rig, Borings logged w/in 5', >51'	Feet		\$8.50	
Decon and Cleaning	5 ft	9	\$10.00	\$90.00
Cutting Holes Concrete/Asphalt	Hole		\$90.00	
Well Materials, 2" well	Feet	45	\$7.00	\$315.00
Well Materials, 4" well	Feet		\$12.00	
Well Materials, 6" well	Feet		\$22.00	
Well Cover	Each	1	\$75.00	\$75.00
<b>SUBTOTAL:</b>				<b>\$1,930.00</b>



- (j) Monitoring well installation per DNR regulations for wells - 45 ft to 60 ft

<b>EMC PROJECT BUDGET</b>				
<b>Drilling – 60 ft.</b>	<b>UNIT</b>	<b># UNITS</b>	<b>COST/UNIT</b>	<b>EXTENSION</b>
Mob/demob	Day	1	\$300.00	\$300.00
Soil Borings, Auger Rig, first 15'	Feet	15	\$20.00	\$300.00
Soil Borings, Auger Rig, 16-25'	Feet	10	\$25.00	\$250.00
Soil Borings, Auger Rig, >26'	Feet	35	\$30.00	\$1,050.00
Blind Drilling, Auger Rig, Borings logged w/in 5', <50'	Feet		\$6.50	
Blind Drilling, Auger Rig, Borings logged w/in 5', >51'	Feet		\$8.50	
Decon and Cleaning	5 ft	12	\$10.00	\$120.00
Cutting Holes Concrete/Asphalt	Hole		\$90.00	
Well Materials, 2" well	Feet	60	\$7.00	\$420.00
Well Materials, 4" well	Feet		\$12.00	
Well Materials, 6" well	Feet		\$22.00	
Well Cover	Each	1	\$75.00	\$75.00
<b>SUBTOTAL:</b>				<b>\$2,515.00</b>

- (k) Backfill and trucking per ton

- a. Trucking \$ 4.75-\$ 6.25/ ton
- b. Backfill \$ 6.50 soil/ton-\$13.00 crushed stone/ ton

*The rate is generally negotiated based on the volume of material delivered. The actual rate will be based on a 10 percent allowable mark-up determined by the least expensive combination of cost for acceptable contractors.*

- (l) Labor cost per hour (general labor, geologist, etc.)

**Environmental Management Consultants, Inc.**  
**PROFESSIONAL SERVICES FEE SCHEDULE**

*Effective for the calendar year 2006*

<b>LABOR</b>	
Principal Environmental Services	\$ 110.00/hour
Senior Project Manager	\$ 102.00/hour
Project Manager	\$ 83.00/hour
Staff Project Person	\$ 70.00/hour
Senior Technician	\$ 55.00/hour
Technician	\$ 38.00/hour
Drafting	\$ 35.00/hour
Word Processing/Clerical	\$ 28.00/hour
<b>SAMPLE ANALYSIS</b>	
BETX/MTBE	\$ 39.60/each
TPH-DRO & GRO	\$ 66.00/each
TPH -ERO	\$ 44.00/each
cPAH & Naphthalene	\$ 74.80/each
VOCs	\$ 115.50/each
TPH-GRO	\$ 39.60/each
TPH-DRO	\$ 44.00/each
<b>FIELD SUPPLIES</b>	
Sampling Supplies	\$ 40.00/day
Disposable Bailers	\$ 15.00/each
Padlocks	\$ 12.50/each
Decontamination Supplies	\$ 10.00/day
<b>PHOTOGRAPHS / REPRODUCTION</b>	
Digital Camera	\$ 10.00/day
Black & White Copies	\$ 0.15/page

<b>EQUIPMENT</b>	
Geoprobe (100-200')	\$1,200.00/day
Mobile Drilling Rig (2 man crew)	\$ 138.00/hour
Concrete Coring Machine	\$ 250.00/day
Electric Generator	\$ 100.00/day
Photoionization Detector (PID)	\$ 75.00/day
Water Level Indicator	\$ 12.00/day
Survey Equipment	\$ 40.00/day
Small Compressor	\$ 50.00/day
PPE – Level D	\$ 10.00/day
4 " Submersible Pump	\$ 95.00/day
Personal Air Sampling Pump	\$ 40.00/day
Manometer	\$ 40.00/day
Hand Auger	\$ 35.00/day
Troll Data Logger	\$ 350.00/day
Oil/Water Interface Probe	\$ 55.00/day
Pump – 12 volt	\$ 40.00/day
Flame Ionization Detector (FID)	\$ 95.00/day
GPS Unit	\$ 95.00/day
Multi-parameter Water Quality Meter	\$ 50.00/day
<b>MISCELLANEOUS</b>	
Mileage	\$ 0.36/mile
Other Materials As Required	Cost Plus 10.0%

**NOTE:** Hourly and daily rates are multiplied by a factor of 1.5 if the work is conducted beyond an 8-hour work day and 2.0 on weekends and holidays.



## (m) Miscellaneous equipment rental list

TYPE OF EQUIPMENT	MODEL	QUANTITY	CAPACITY	COST	UNIT
Bladder Pump & Controller	TR-032	1	1.2 L/min.	\$150.00	Day
Air Compressor – small		2	0-160 psi	\$50.00	Day
24 – hour Composite Sampler	SS201	1	2-4 L		
Moisture Meter	445580	2	10% - 90% RH 14-113 °F	\$5.00	Day
Oil/Water Interface Probe	Heron H.01L	1	100 ft.	\$55.00	Day
ORP Meter	OR1010800	1	4-999 mV	\$5.00	Sample
Personal Air Sampling Pump	Airchek	20	1-10 L/min.	\$40.00	Day
pH Meter	OR1010600	3	0-14 S.U.	\$5.50	Sample
PID	Mini Rae 2000	1	0-2,000 ppm	\$75.00	Day
Pocket Penetrometer		1		\$5.00	Day
12 V Purge Pump	ES-40	1	0-5 gpm	\$40.00	Day
Soil Vapor Extraction Blower	SZ 598038	1	5 Hp	\$800.00	Day
Submersible Pump	Grundfos	1	4" Dia	\$150.00	Day
Survey Equipment	LP6-20	1		\$35.00	Day
Temperature Meter	35628-00	1	-20 –220 °F	\$3.00	Sample
FID	TVA-1000B	1	0-10,000 ppm	\$95.00	Day
GPS Unit		1	+/- 0.1 ft.	\$95.00	Day
Hand Auger	Various	5	0-30 ft.	\$35.00	Day
Troll Datalogger	MP Troll 9000 Professional	1	10 <sup>6</sup> readings, pH, T, DO, ORP, Cond.	\$350.00	Day
Conductivity Meter	OR1011800	1	0-19.90 ms/cm	\$5.50	Sample
Turbidity Meter	212122	1	0.01-1,100 NTU/FTU	\$10.00	Sample
Water Level Indicator	Dipper T	2	100 ft.	\$12.00	Day

<b>TYPE OF EQUIPMENT</b>	<b>MODEL</b>	<b>QUANTITY</b>	<b>CAPACITY</b>	<b>COST</b>	<b>UNIT</b>
Discrete Water Sampler	226478	1	125 ml	\$25.00	Day
Manometer	475 MK III	1	0-19.99 IWC	\$40.00	Day
Soil Push Probe		5	18"	\$35.00	Day
Digital Camera	Various	3		\$10.00	Day
Electric Jackhammer		1		\$60.00	Day
Concrete Cutter		1		\$80.00	Day
Power Auger		1		\$50.00	Day
Generator		2	4,500 KVA	\$200.00	Day
Air Compressor – Large		1	0 – 250 psi	\$150.00	Day

### 3. PREVIOUS EXPERIENCE

- (a) Provide a summary of the firm's past two years experience with petroleum remediation projects, organized by the following remedial approaches. Please limit responses to no more than two pages of narrative description per remedial approach. Summary charts of project specific information may be substituted for narrative descriptions.

#### (1) Soil excavation and disposal

EMC has conducted soil excavation and disposal activities as a remediation process on numerous sites impacted with petroleum, as well as other constituents. The sites involved with excavation and disposal as a remedial technology involved several different Indiana Department of Environmental Management (IDEM) programs including the following: Excess Liability Trust Fund (ELTF), RCRA, state cleanup and Superfund. *EMC also completed the first PRGI project by achieving a "No Further Action" at the former Kenny Kent Chevrolet facility located in Evansville, Indiana.* The following narrative describes an example of a large excavation and disposal project that was conducted within the last two years.

The site {Incident #2005-10-055} is industrial and is adjacent to a property which was impacted by a petroleum release associated with a large underground storage tank (UST). In the process of conducting an IDEM approved excavation of the petroleum impacted soil associated with a former UST, additional petroleum impacted soil was encountered. A large underground drainage system was uncovered during the excavation. This drainage system provided a migration pathway for petroleum products to enter the subsurface. Since this release was not associated with the UST, remediation and closure activities were conducted through the IDEM State Cleanup Program.

The ongoing excavation and disposal required the constant field screening of the impacted soil to assure complete removal of the impacted material. Field screening was conducted using a Flame Ionization Detector (FID) along with visual and olfactory observations. A total of approximately 4,548 tons of impacted material was removal and transported under manifest to a licensed disposal facility.



Once each section of the drain system and associated impacted soil was removed, confirmation soil sampling was conducted. Based on the results of the laboratory analysis, additional excavation was performed in limited areas, and these areas were resampled. Once remediation objectives were obtained in each area, clean backfill was placed in the excavated areas and compacted.

Following the receipt of the final laboratory results and on the conclusion of the backfilling operations, a final report was submitted to the IDEM State Cleanup Section. Based on the remediation activities and on the confirmation sampling outlined in the report, the IDEM issued a "No Further Remediation Letter." Based on the timely remediation and final closure of this site, construction of a large industrial warehouse building was completed within the projected time frame.

The above work included, but was not limited to, the following project management tasks: direct client contact, supervision of field technicians and drafting personnel, project coordination with subcontractors and IDEM staff, interim reporting, specification writing, project specific health and safety plan preparation and implementation, cost estimating and invoicing, final report preparation and field inspections. The above work included, but was not limited to, the following field tasks: field screening of samples, petroleum source investigations, confirmatory soil sampling, closure sampling and supervision of subcontractors.

## **(2) In-situ soil vapor extraction**

EMC has worked on several sites where in-situ soil vapor extraction was employed as the remedial technology. The following narrative describes an example of a site that was worked on in the past two years.

The site {Incident #9807506} is a former fueling station and currently operating industrial facility that is participating in the ELTF program. Environmental work at the facility started with the removal of two 8,000-gallon, gasoline USTs. Then, during construction activities of the industrial facility, a total volume of approximately 2,940 tons of petroleum impacted soil was excavated and disposed of at a landfill.

A site investigation was conducted that involved the delineation of the soil and groundwater hydrocarbon plumes. Fifteen groundwater monitoring wells were installed on the site and adjacent property. The wells were then developed and sampled to complete the groundwater delineation. The groundwater plume was determined to be an approximate area of 127,403 square feet. Eighteen soil borings were installed on the site, and the soil was field screened and sampled to complete the soil delineation. The soil plume was determined to be confined to a depth of 10 to 24 feet below land surface with an approximate area of 5,150 square feet. A Site Investigation Report was submitted to and approved by IDEM.

In preparation of the Corrective Action Plan (CAP), the following pilot tests were conducted to determine groundwater properties and to determine the feasibility of various remedial technologies: groundwater slug tests, groundwater pump and treat pilot tests and soil vapor extraction pilot test. The approved remedial technologies at the site included the use of soil vapor extraction through four (4) soil vapor extraction wells and pump and treat through the use of submersible pumps in nine (9) groundwater recovery wells. The implementation of the CAP involved the installation of 12 remediation wells, as well as trenching and piping. The remediation equipment is located in two separate buildings (one on the property and one on the adjacent property) as two (2) complete remediation systems.



Soil vapor extraction (SVE) can be a cost-effective method to remediate volatile organic hydrocarbon compounds when the contamination occurs in unsaturated soils with sufficiently high permeability. Soil vapor extraction operates on the principle of initiating and maintaining air flow in the subsurface by applying a pressure gradient through vertical wells from air withdrawal. The soil vapor extraction air flow increases the rates of contaminant mass transfer to air in the unsaturated zone by evaporation of liquid phase hydrocarbons, by desorption of contaminants from soil particle surfaces, and by volatilization of contaminants present in soil pore space. The air flow through the contaminated soil also increases biological activity through enhanced oxygenation, thus promoting biodegradation by existing microorganisms.

The operation and maintenance of the remedial systems included monitoring the performance of the systems and when necessary, implementing changes to maximize system performance and contaminant mass reduction. Currently, the overall groundwater contaminants have been reduced by 87%, and the soil vapor extraction system has removed approximately 16,292 pounds of contaminants. The site was originally under the 1994 UST Regulations; however, the property owner has transitioned to RISC in the efforts to achieve a risk-based closure.

The above work included, but was not limited to, the following project management tasks: direct client contact, supervision of field technicians and drafting personnel, project coordination with subcontractors and IDEM staff, remedial system design/implementation/installation/operation, specification writing, project health and safety plan preparation and implementation, cost estimating and invoicing, quarterly reporting, report preparation and field inspections. The above work included, but was not limited to, the following field tasks: soil, air and groundwater sampling, pilot tests, slug tests, monitoring and remediation well installation, field screening of samples, supervision of subcontractors, drum/container removal, start-up of remediation equipment and maintenance and operation of remedial equipment.



### **(3) Ex-situ soil treatment**

EMC has worked on a number of sites where ex-situ soil treatment was utilized as the remedial technology, including a RCRA site. The following narrative describes an example of a site that was worked on in the last two years.

The site {Incident #9808192} is a former abandoned fueling station and currently operating commercial facility that is adjacent to a public water supply well field. Due to the potential receptors, this site is listed as a high priority site and restricted to RISC Residential Closure Levels as a remedial objective. The site is participating in the ELTF program. Environmental work at this site began with the removal of four USTs.

During the UST removal activities, additional excavation was conducted to remove soil contamination. Analytical results from the excavation and UST closure indicated further areas of impacted soil. The remedial activities at the site allowed the property to be redeveloped for a commercial use. During the construction activities for the commercial building, an additional volume of petroleum impacted soil was excavated. Additional volumes of soil were produced during well installation during the site investigation phase of the project. All excavated soil and drill cuttings from the site was placed in an off-site land farm treatment cell for remediation. A volume of approximately 2,430 cubic yards of soil was remediated in this land farm treatment cell.

A Quality Assurance Project Plan was prepared for the installation, operation, maintenance and sampling of the land farm treatment cell. The treatment of the soil in the land farm consisted of aeration events where the soil was thoroughly mixed. The progress of the remediation was tracked by periodic field screening events. Once the field screening results indicated that the soil was remediated, closure soil sampling was conducted. A No Further Action was issued by IDEM on the soil that was treated in the land farm treatment cell.

The above work included various project management tasks such as: direct client contact, supervision of field technicians and drafting personnel, project coordination with subcontractors



and IDEM staff, specification writing, contaminant transport evaluation, project health and safety plan preparation and implementation, cost estimating and invoicing, report preparation and field inspections. This work also included several field task such as: soil sampling, field screening, drum/container removal, maintenance of the land farm treatment cell construction and supervision of subcontractors.



#### **(4) Groundwater extraction and treatment**

EMC has worked on several sites that utilized the remedial technology of groundwater extraction and treatment. Groundwater extraction strategies utilized by EMC include mobile extraction system, submersible groundwater recovery pumps and dual-phase extraction. The following narrative describes an example of a site that was worked on in the past two years.

The site {Incident #9901540} is an operating industrial facility that participates in the ELTF program. UST closure activities at the site included the removal of a 10,000-gallon and a 8,000-gallon diesel fuel USTs and a 8,000-gallon and a 2,000-gallon gasoline USTs from two separate tank pits.

A site investigation was conducted that involved the delineation of the soil and groundwater hydrocarbon plumes. Eleven groundwater monitoring wells were installed, developed and sampled to complete the groundwater delineation. The groundwater plume was determined to be an approximate area of 67,360 square feet. Thirty-three soil borings were advanced at the site, and the soil was field screened and sampled to complete the soil delineation. The soil plume was confined to a depth of 4 to 8 feet below land surface with an approximate area of 30,388 square feet. A Site Investigation Report was submitted to and approved by IDEM.

The following pilot tests were utilized during the preparation of the CAP to determine groundwater properties and to determine the feasibility of different remedial technologies: groundwater slug tests, groundwater pump and treat pilot test and soil vapor extraction pilot test. The approved remedial technologies at the site included the use of dual-phase extraction with seven (7) extraction wells focusing on a portion of the soil plume (8,130 square feet) and four (4) extraction wells concentrating on the groundwater plume. The remaining portion of the soil plume (22,258 square feet) was remediated through the use of monitored natural attenuation. The implementation of the CAP included the installation of 10 remediation wells and the associated trenching and piping. The remediation equipment is included in two buildings as two complete remediation systems.



Dual-phase extraction (DPE) involves removing contaminated soil vapors and groundwater with a single remediation system and from common extraction wells under high vacuum conditions. Dual-phase extraction technology increases the vapor extraction zone of influence by lowering the water table and therefore increasing the air-phase permeabilities in the vadose zone which also allows for the smear zone and the saturated soil zone to be addressed. Introduction of oxygen into the subsurface during the vapor extraction process stimulates aerobic biodegradation and can promote in-situ remediation of soil contaminants that would not typically be volatilized and removed by the extraction system.

The operation and maintenance of the 2 remediation systems included monitoring the performance of the systems and when necessary, implementing changes to maximize system performance and contaminant mass reduction. Currently, the overall groundwater contaminants have been reduced by 96.8%. The site was originally under the 1994 UST Regulations; however, the property owner has transitioned to RISC in order to achieve a risk-based closure.

Project management was involved in the following tasks during the environmental investigation of the site: direct client contact, supervision of field technicians and drafting personnel, project coordination with subcontractors and IDEM staff, specification writing, project health and safety plan preparation and implementation, cost estimating and invoicing, report preparation and field inspections. Field personnel were involved in the following tasks during this project: soil, air and groundwater sampling, pilot tests, slug tests, monitoring and remediation well installation, field screening of samples, supervision of subcontractors, start-up of remediation equipment, and maintenance and operation of remedial equipment.

### **(5) In-situ air sparging**

EMC personnel have worked on a number of sites where air sparging was employed as a remedial technology. EMC, however, has not worked on any sites within the last two years, where air sparge technology was determined to be the most feasible technology. EMC is in the initial stages of a project {Incident #2006-07-510} where air sparge technology may be proposed for the remediation of tank pit water at an active fueling station.

Air sparge technology is utilized at sites with high hydraulic conductivity and permeable soil types such as sand and silt. A majority of petroleum sites EMC is currently working on involves tight clay soil where air sparge technology would not be feasible. In addition, air sparge technology does not provide hydraulic control of a groundwater plume which is necessary at most sites where groundwater is contaminated.

The air sparging remedial technique involves injecting air into the saturated zone. The air forms bubbles that rise into the unsaturated zone, carrying trapped and dissolved contaminants. Soil vapor extraction wells in the unsaturated zone then capture the air. Air sparge technology rapidly reduces volatile organic compounds below the water table. Air sparging can enhance and accelerate effectiveness of soil vapor extraction technology.

## **(6) In-situ biological treatment**

EMC has worked on a number of sites where in-situ biological treatment was utilized as the optimum remedial technology. Bioremediation requires all of the following to be present in sufficient quantities: microorganisms, nutrients, electron acceptor (organic matter or hydrocarbons in aerobic degradation), electron donor (oxygen in aerobic degradation) and a media. This remedial technology involves providing one or more of these items which may occur in limited quantities at the particular site to stimulate biodegradation. Types of in-situ biological treatment used by EMC include the injection of the following: Oxygen Releasing Compounds® (ORC) (aerobic biodegradation), Hydrogen Releasing Compounds® (HRC) (anaerobic degradation) and microbes. The following narrative describes an example of sites that were worked on in the last two years.

The first site is a municipal landfill in Gibson County that is located upgradient of a creek. As part of the ongoing corrective action plan for the landfill, large scale HRC® and ORC® injection events were conducted. These substances were utilized to promote anaerobic and aerobic degradation in various areas along the boundary of the landfill as a barrier to off-site migration. The groundwater is sampled semi-annually, and a statistical analysis is conducted on those analytical results.

The next site {Incident #9807538} is a former fueling station and current commercial facility. A Phase I and Phase II Environmental Site Assessment were initially conducted at the site to determine the environmental impacts at the site. That investigation uncovered petroleum impacts in the soil at the site. Two (2) gasoline USTs (3,000-gallon and 10,000-gallon) were removed from the property during the UST closure activities. EMC participated in all aspects of the UST removal and closure activities, specifically, in providing the required notifications, preparing the health and safety plan, locating the USTs, supervising the removal of the entire UST system, conducting the confirmatory soil samples, supervising the backfilling activities and preparing the UST Closure Report. Approximately 3,155 tons of petroleum-impacted soil was excavated in two (2) separate events and disposed of in a permitted landfill. The excavations were conducted to a total depth of 12 feet.



As part of the site investigation and delineation activities, 11 permanent groundwater monitoring wells and five (5) temporary groundwater monitoring wells were installed at the site. Soil samples were collected during the following phases of work at the site: UST closure samples, two (2) rounds of excavation confirmatory soil samples, and during the advancement of 34 soil borings.

After the delineation was approved by IDEM, a CAP was prepared and approved by IDEM. This CAP focused on treating the groundwater in a phased approach. The initial approach involved mobile vacuum extraction events from 3 groundwater extraction wells. Following that phase, a total volume of approximately 1,320 pounds of ORC<sup>®</sup> was integrated into the excavation backfill and a total volume of approximately 1,500 pounds of ORC<sup>®</sup> was injected into 48 push-probe points.

In most cases of remediation employing biodegradation, oxygen is the limiting factor in aerobic degradation. Once sufficient oxygen is provided through compounds such as ORC<sup>®</sup>, aerobic degradation will occur, provided that the microorganisms are present in sufficient quantities. Enhanced biodegradation is dependent upon transporting oxygen and other nutrients through the soils via groundwater movement. Enhanced biodegradation through the use of Oxygen Releasing Compounds (ORC<sup>®</sup>) is extremely cost efficient with total BTEX/MTBE concentrations ranging from 0 to 20 mg/L and with groundwater velocities greater than 0.01 ft/day.

The final phase of groundwater remediation involved monitored natural attenuation. A Mann-Kendall evaluation, as described in the RISC Technical Guide, was conducted on the quarterly groundwater events to track the progress of the remediation. Currently the site needs one more set of quarterly groundwater results before a No Further Action status will be granted for the site. The Mann-Kendall calculations have demonstrated that the groundwater plume is either stable or decreasing across the site.

## **(7) In-situ chemical oxidation**

The following example from the last two years is one that will use in-situ chemical oxidation as the remedial method. In-situ chemical oxidation is increasing in popularity as a feasible remedial option at many sites.

The site {Incident #9307155} is a former taxi cab facility and current commercial facility that lies 400 feet from the Ohio River. A 2,000-gallon gasoline UST was originally closed in place and was then removed at another time. Site investigation activities at the site show that the area of the soil plume at the 24 to 32 foot interval is approximately 9,520 square feet, of which 6,345 square feet of area is on-site. The water table at this site is reported to vary between 22 to 38 feet below ground surface. There is also a small band of soil contamination at the 12 to 16 foot interval. The soils at this site consist mostly of sand and silty sand with small bands of clay and silty clay. The area of the groundwater plume based on the RISC Industrial Closure Level is approximately 2,658 square feet, and the area of the groundwater plume based on the RISC Residential Closure Level is approximately 3,796 square feet.

A previous consultant installed a remediation system that consisted of five (5) soil vapor extraction wells screened from 15 to 25 feet and 10 to 20 feet and a pump and treat system with three (3) groundwater recovery wells. The soil vapor extraction system did not address the entire soil plume (at depth) which left a constant source for the groundwater. This remediation system was, therefore, not effective in reducing the contaminants at the site. Another CAP was prepared by EMC and approved by IDEM that will utilize chemical oxidation through the use of RegenOx<sup>™</sup> to remediate the soil and groundwater. The site is currently awaiting implementation after the property owner secures funding.

Chemical oxidation is a technically sound and potentially cost effective approach for affecting in-situ contaminant mass reduction in both the soil and groundwater in a relatively short period of time. A chemical oxidation reaction involves the breaking of chemical bonds and the removal of electrons. The electrons are then transferred from the contaminant to the oxidant. Chemical

oxidation is a sequential process taking the parent target contaminant through a series of partially oxidized intermediate daughter products on the path to complete mineralization.

There are many compounds that can be used for chemical oxidation, such as the following: hydrogen peroxide, permanganate, persulfate, percarbonate, ozone and RegenOx™. RegenOx™ is a proprietary in-situ chemical oxidation process using a solid oxidant complex (sodium percarbonate/catalytic formulation) and an activator complex (a composition of ferrous salt embedded in a micro-scale catalyst gel). RegenOx™ has very high activity, capable of treating a very broad range of soil and groundwater contaminants including petroleum hydrocarbons. Additionally, it has a significant longevity in the subsurface allowing for both the initial contaminant degradation and the continued treatment of contaminants desorbing from the matrix. Most importantly, RegenOx™, when handled appropriately, is safe and easy to apply to the subsurface without the health and safety concerns and lingering environmental issues that have become associated with other chemical oxidation technologies.

The remedial design for this site includes 4 injection events of 36 injection points in the area within the 1,000 parts per million (ppm) soil isoconcentration line, and 3 injection events of 30 injection points in the area within the 100 ppm soil isoconcentration line. The RegenOx™ will be injected across a vertical interval of 15 feet (from 23 to 38 feet below ground surface). A total of 96,750 pounds of RegenOx™ will be utilized.

## **(8) Phytoremediation**

Phytoremediation is a set of technologies that use various plants to degrade, extract, contain or immobilize contaminants from soil and groundwater. The idea of using plants to change the environment has been around for a while from when plants were used to drain swamps and to treat wastewater.

Plants are living organisms that require water, nutrients and oxygen. The pH, soil texture, pollutant concentration, salinity and the presence of other toxins must be within the limits of the plants' tolerance for phytoremediation to be a viable remedial technology at the site. The soil, however, can be amended to add nutrients if necessary. The contaminants must be in the rhizosphere of the plants for uptake or treatment. Deep groundwater contaminants or leachate pond effluents can be treated if the water is pumped and then drip irrigated onto the plants. Trees are also being utilized to remediate deeper groundwater plumes.

Phytoremediation can be utilized at sites with large contaminated areas with huge remediation cost savings. Phytoremediation provides a ground cover that decreases the human exposure risk. Other advantages to this remedial technology are that there is a complete breakdown or immobilization of the pollutant, that the technology is aesthetically pleasing and considered a passive technique and that the soil is reclaimed for future use. Phytoremediation is most useful at sites with shallow, low levels of contamination. Some of the disadvantages to using phytoremediation is that the time to achieve clean-up levels may be longer than more conventional remedial methods. Also, the site must stay a "green" area and not redeveloped during the remediation time period.

Environmental Management Consultants, Inc. utilizes the sub-contracted services of Natural Resource Professionals, LLC (NRP), for the design and implementation of phytoremediation/reclamation projects. These projects involve phytoremediation in ways such as providing a cap or cover on the reclaimed lands and utilizing anaerobic wetlands to control acidic and ferruginous mine drainage. Reclamation of mined lands involves several steps in order to remediate the land. The following includes a list of some of the tasks that NRP have been



involved in with respect to mine reclamation work: massive earthwork (spoil grading, soil replacement, etc.); conservation structures (dams, channels, spillways, terraces, wetlands, roads, etc.); establishment of vegetation (grass and forb covers, agronomic crops, trees, etc.); land use plans (incorporation of all the above into a comprehensive plan); removal of dilapidated buildings, processing facilities and structures; permits, reports and negotiations with regulatory agencies; control of acidic and ferruginous mine drainage (material encasement, direct treatment, passive systems like anaerobic wetlands, aqueous anoxic systems, etc.); cost estimating and accounting for projects; timing, equipment and manpower scheduling; and assessment of regional hydrological impacts.

To date, EMC has not had a petroleum contaminated site where phytoremediation was selected as the most feasible remedial technology. Many times, the property owners do not have the flexibility of time and space to allow for such a remediation technology. Most sites are redeveloped for other commercial or industrial uses. We have been involved with an innovative use of an industrial waste food by-product as a wetland substrate. This material was used in the wetlands constructed for the mitigation of acid main drainage. Environmental Management Consultants, Inc. facilitated the coordination between the industrial producer, regulatory agencies and the end user to provide the beneficial use of the material and thus allow for significant cost savings by all parties.

In addition the documented experience of EMC's sub-contracted work with phytoremediation as part of coal mine reclamation projects, a member of EMC's staff has researched the remedial method of phytoremediation as part of a Master's level project at Purdue University.



## **(9) Groundwater containment/barrier system**

Groundwater containment or barrier systems as forms of remediation can be used to prevent off-site migration of contaminants and/or as the in-situ remediation technology of the contaminants. A reactive zone is an aquifer or vadose zone segment that is managed to chemically or biologically destroy contaminants as the groundwater flows through the reactive zone or treatment wall. The reactive zones may be sustained for a long time span to act as a migration barrier or it may be a short-term treatment strategy for elimination of a contaminant source zone.

Reactive zones or (groundwater containment barrier systems) are usually constructed through the injection of reagents within the treatment zone. There are numerous biological and chemical reagents that can be used in reactive zone treatment technologies that either oxidize or reduce the contaminants. The following describes some of the reagents or processes that may be involved in a reactive treatment zone system: aerobic biostimulation, co-metabolic aerobic biostimulation, enhanced reductive dechlorination, abiotic reduction, phytoremediation (root exude stimulation and rhizospheric reductive dechlorination), dithionite, zero-valent iron, and chemical oxidation (Fenton's reagent, hydrogen peroxide, permanganate, persulfate, percarbonate, ozone and RegenOx<sup>™</sup>). Due to the depth of dense nonaqueous phase liquid contaminant plumes, the treatment of the groundwater can be very expensive. More and more of sites with those types of contaminants are utilizing groundwater containment and barrier systems as the preferred remediation technology, instead of the traditional pump and treat technologies.

In petroleum sites, this remedial technology (groundwater containment/barrier system) would most likely be used as a form of enhanced bioremediation, where compounds, such as Oxygen Releasing Compounds (ORC<sup>®</sup>), are injected along a property boundary or point of compliance. EMC has been involved in a number of petroleum sites where a groundwater containment barrier system was utilized as part of the remedial strategy. The following examples are examples of such projects within the last two years.

The first site is a municipal landfill in Gibson County that is located upgradient of a creek. As part of the long-term monitoring plan for the landfill, large scale HRC<sup>®</sup> and ORC<sup>®</sup> injection



events were conducted. These substances were utilized to promote anaerobic and aerobic degradation in various areas along the boundary of the landfill as a barrier to off-site contaminant migration. The groundwater is sampled semi-annually, and a statistical analysis is conducted on those analytical results.

The next site {Incident #9807538} is a former fueling station and current commercial facility. As part of the remedial strategy, a total volume of approximately 1,320 pounds of ORC<sup>®</sup> was integrated into the excavation backfill and a total volume of approximately 1,500 pounds of ORC<sup>®</sup> was injected into 48 push-probe points. These ORC<sup>®</sup> injection points were advanced in a right-of-way of a major highway to prevent off-site migration of the groundwater plume. Currently the site needs one more set of quarterly groundwater results before a No Further Action status will be granted for the site. The Mann-Kendall calculations have demonstrated that the groundwater plume is either stable or decreasing across the site.

Besides EMC's experience with sites utilizing groundwater containment and barrier systems as a form of remediation, EMC focuses continuing education of their personnel on remedial technologies. One of EMC's staff attended the week-long seminar entitled "Analysis, Fate, Environmental and Public Health Effects, and Remediation of Soils, Sediments, and Water," which included a class on "Optimizing Reactive Zone Injection Strategies."



#### **(10) Monitored natural attenuation/risk analysis**

EMC has work on several sites throughout the years where monitored natural attenuation and risk analysis were utilized. There are many cases where other remedial technologies were initially employed at the sites, but then monitored natural attenuation was used at the final stage of remediation. Reasons why more than one remedial technology may have been used at a site include some of the following: to achieve residential closure levels after reaching industrial closure levels, for budgetary restraints, as a phased approach after the source (high concentrations) was removed, as a passive form of remediation to follow an active form of remediation after reducing contaminant concentrations and as a continuation of an enhanced biodegradation remediation strategy.

Risk analysis, particularly as described in IDEM's RISC Technical Guide, has been used at numerous sites by EMC to determine if additional sampling or if active remediation, if any, was necessary. As an example within the last two years, EMC has conducted Area Screening activities at a private property located within the Jacobsville area which is an EPA Superfund site in Evansville. Area screening was conducted on a portion of four city blocks of property that were classified as "areas that may be contaminated." One of the areas that was screened was utilized as a daycare playground.

The area screening process involved classifying one-half acre areas of property into one of the following three categories: 1) areas that are unlikely to be contaminated, 2) areas that are known to be contaminated or 3) areas that may be contaminated. Areas that may be contaminated were further classified by whether the chemicals of concern (COC) are nonvolatile or volatile compounds. The statistical analysis of the analytical concentrations for area screening determined whether the areas needed additional sampling or if those areas qualified for closure.

This particular site had a nonvolatile COC (lead); therefore, the Max Test General Procedure for Nonvolatile Compounds was followed for the area screening at the site. Ninety-four random soil borings were advanced for a submittal of twenty-four composite soil samples as part of the area screening process. In addition, sixty-five judgmental soil borings were advanced for a submittal

of one hundred twenty-six soil samples to assess the remaining areas of the property (small areas of the property that were not covered with building, parking lots and garages, etc.). The results from the area screening and judgmental sampling indicated that five areas of the property required remediation. The soil in those areas was excavated and transported to a licensed disposal facility. A total volume of approximately 2,173 tons of soil was excavated as part of the remediation efforts.

Another large scale risk analysis project was conducted on a former military facility. The property was ten acres in size, of which seven acres were determined to be "areas that may be contaminated." This particular site also had nonvolatile COCs; therefore, the Max Test General Procedure for Nonvolatile Compounds was followed for the area screening activities at the site. Four hundred forty-eight random soil borings were advanced for a submittal of two hundred twenty-four composite soil samples as part of the IDEM RISC area screening process. The statistical analysis from the Max Test procedure in the IDEM's RISC Technical Guide was conducted and then used to analyze the data from each section of the area screening process.

Risk analysis was also used in the site investigation phase to evaluate susceptible areas. Areas that were considered geologically susceptible contained karst bedrock areas, caves and/or mined areas. Areas that were considered socially susceptible areas included areas with schools, parks and/or hospitals. Areas that were considered ecologically susceptible areas included areas with habitats of concern, parks, surface waters, wetlands and/or recreational areas. Areas of wellhead protection and drinking water wells were also evaluated when considering susceptible areas near the site. In determining the potential risk to receptors from a contaminated site, probable contaminant transportation mechanisms were evaluated. The transfer mechanisms of the contaminants to surface water and groundwater were also examined. Items such as the following were examined: locations of storm sewers and ditches, location of underground utility conduits, presence of basements, and locations of cracks or seams in the surface material of the property.

## **(11) Free product removal**

EMC has been involved in a number of sites throughout the years where petroleum free product removal was necessary. One such site {Incident #9904096} that was worked on in the last two years involves a former taxi cab and bus facility and adjacent residence. A 550-gallon gasoline UST was removed from the property, and then site investigation activities to delineate the soil and groundwater plumes were conducted.

One monitoring well was found to contain free product that ranged in thickness from approximately 0.33 to 9.18 feet. A groundwater recovery well was installed in the area to provide another location for free product removal. Free product recovery events conducted with a mobile vacuum truck were conducted twice a month at the site. Some of the soil borings advanced at the site also contained free product. The free product was discovered to be within the soil in a layer of sand from 12 to 24 feet below ground surface. A total volume of approximately 3,309 gallons of free product and groundwater were extracted from the monitoring well and groundwater recovery well during free product abatement events.

The free product abatement events were terminated when an excavation was conducted at the site to remove a majority of the source. Soil was excavated from the 12 to 24 foot interval at the site for an approximate volume of 1,314 tons. The soil was disposed of at a licensed disposal facility. After the excavation activities were completed, groundwater monitoring wells were installed to replace the wells that were abandoned during the excavation activities. Free product was not present at the site after the completion of the excavation. A CAP was prepared to address the remaining soil and groundwater contamination at the site. The selected remedial technology was dual-phase extraction to address the soil in the sandy layer and to address the groundwater plume. The dual-phase extraction system consists of 6 extraction wells within the plume. The CAP has been implemented and the remediation system has started. The remediation is currently in the initial stages of operation at this time. Redevelopment of the affected property and the adjacent property has occurred since the start of the environmental investigation. The residence was purchased by the responsible party and subsequently demolished. A redevelopment plan is being considered at this time to utilize both properties as parking for an adjacent library which



currently has no off-street parking. Once the remediation is complete and a no further action status is received, the property owner will donate the property to the city for use of the library.



## **(12) Other**

The following are examples of remediation that utilizes remedial technologies not listed above. The first site {IN State Cleanup #0000174} is a former railroad maintenance yard on approximately 66 acres of land that is bordered by Pigeon Creek. Besides the petroleum contaminants present from the historical land use as a rail yard, the property was also covered with coarse coal refuse and mining gob material (collectively called aggregates) from off-site mining activities. The property has not been used since the 1970's and has been used by vandals, homeless people and meth labs. The city of Evansville purchased the property to be the location of a proposed wastewater treatment plant. Parts of this project have been funded through money obtained through the State Revolving Loan Fund.

Approximately 360,000 cubic yards of cinder fill was determined to be within the boundaries of the site. The thickness of the material ranged from a half of a foot at the limits of the fill to a maximum depth of 20 feet. Various amounts of rubble and debris were also mixed with the cinder fill. Several gullies had formed along the creek through the cinders where acid mine waters flowed into the creek. The property also had many acres of land with stressed vegetation or areas where vegetation would not grow.

Several remedial methods were employed at this site. Initially, the property was cleared, and all aboveground and underground structures from the rail yard facility were removed. All of the gullies along the creek were repaired and stabilized. An approximate volume of 2,220 tons of diesel contaminated soil was excavated and disposed of at a licensed facility. The next phase involved removing approximately 81,583 cubic yards of aggregates from the wastewater treatment plant footprint and then placing this material in a berm that would surround the future wastewater treatment plant. An approximate volume of 44,667 cubic yards of total petroleum-impacted soil was then excavated and relocated into the berm. The berm and the portion of the property outside of the plant footprint was covered with a layer of agricultural lime (to neutralize the aggregates) and then a 2 foot soil cover was placed over the top of the aggregates. A borrow pond was constructed for fill and cover material, and several drainage features were installed to control the run-off from the property. The property was then vegetated to provide erosion control



and cap maintenance. A no further action status has been received from the state cleanup branch for the soil remediation. Currently work is on-going in assessing the groundwater contamination, if any, remaining at the site. At this time, the city has placed its plans of building a wastewater treatment plant on the property on hold pending assessment of needs and future growth of the city. It will, however, be utilized in the near future as a pumping station for wastewater.

Another site {Incident #2001-12-141} involves vapor intrusion in a residence. The source of the leak was a spill of approximately 1,000 gallons of gasoline and diesel fuel during the installation of a currently operating fueling station. The site participated in the ELTF program with IDEM oversight. The guidelines in the RISC manuals, as well as the IDEM draft Vapor Intrusion Guidelines, were employed throughout various stages of this project.

Vapors were detected in a residence located downgradient of the station. A radon mitigation system and drainage system were installed within the crawl space of the residence to mitigate the vapors inside the residence and to control water flow within the crawl space. Petroleum-impacted gravel was also removed from the crawl space. A negative air machine was utilized to complete several air exchanges of both the house and the crawl space.

The air inside the house and within the crawl space (both above and below the barrier) were periodically monitored through the collection of air samples with summa canisters. The air sampling plan had to be modified when it was determined that a number of adults in the residence smoked cigarettes and the allowable levels were no longer being achieved. Due to the shallow depth to bedrock and considering the presence of karst features at the site, the air sampling events for closure were conducted during 2 wet weather conditions and 2 dry weather conditions which were both limited by the amount of rainfall during a period of time and by the time of the year. After completing the required number of closure sampling events, a No Further Action status was issued by IDEM. This allowed the responsible party to be able to sell the residence.

- (b) Please estimate the number of Indiana site closures obtained by the firm in the past three years. Examples of site closures should include documented Site Status Letters, Comfort Letters, No Further Action Letters, Certificate of Completion determinations issued by IDEM involving petroleum contamination, or the achievement of remedial cleanup goals at petroleum contaminated sites not enrolled in an IDEM cleanup program. Please limit your response to this sub-section to no more than two pages of narrative or chart summarization.

EMC has acquired extensive experience in providing professional consulting, investigative and remediation services involving environmental contaminants and regulatory compliance issues. EMC has conducted over 3,500 environmentally related projects. Many of these projects were performed for clients who wish to remain confidential. We have obtained sixteen (16) No Further Action Letter closures of contaminated properties during the past three (3) years. Additionally, eight (8) sites have been closed that were either non-regulated or have not yet enrolled in a state cleanup program. Fourteen (14) sites are currently being evaluated for closure or have an ongoing remediation system in operation and nineteen (19) sites have been closed via investigation utilizing RISC guidelines. Additional details regarding any of these projects will be made available upon request.



(c) **Describe in two pages or less the firm's experience with fixed-price remediation contracts and the firm's success rate in achieving cleanup targets within the constraints of the applicable contract terms.**

Environmental Management Consultants, Inc. and/or its affiliates have successfully completed hundreds of fixed-price investigation and remediation contracts. This work has been performed for a variety of clients including municipal, legal, insurance, industrial and state financial agencies. Many of these projects have been associated with asbestos or lead-based paint abatement and drilling services. Several projects have involved petroleum contamination cleanup and site closure with a "guaranteed maximum cost" or "not to exceed" contract specified amount. Several projects have been performed during the past three (3) years for the IFA under the brownfield SAGI grant program and one (1) site was remediated under the original PRGI initiative.

The completion of the Kenny Kent PRGI by EMC is likely the most successful project under the former PRGI program. Environmental Management Consultants, Inc. was awarded the contract for this site after submittal of a competitive fixed fee bid following the program guidelines. This site was the former location of a bus terminal and automobile dealership that contained a total of seven (7) underground storage tanks. Each of the tanks was either removed or closed in place with residual contamination left in the tank pit. Prior to the PRGI application, EMC provided assessment and investigative services for the city of Evansville, consistent with this request for qualifications, to evaluate this brownfield site. Within three (3) months of being given the notice to proceed for the project, EMC mobilized to the site, completed the remediation of the residual contaminated soils from the three (3) tank pits, collected confirmatory soil samples from the walls and floor of the excavations according to RISC sampling strategies, restored the site to owner specifications, prepared the written report for submittal to IDEM and obtained a No Further Action letter from the state. Since then, the buildings at the site have been demolished and the site is shovel ready for future development.

Our company policy is to generate a scope of work, budget and contract for every project undertaken. The project manager participates in every step of project administration and is held accountable for results. If modifications to the scope of work are necessary, based on unknown



or unanticipated field conditions, an additional work order is processed. This philosophy allows EMC to stay within budget on every project. Environmental Management Consultants, Inc. is proud of its reputation for providing dependable, on-time, accurate and legally defensible environmental services; a reputation that has served to firmly establish us as the premier consultant in the south and central regions of Indiana.



#### **4. GEOGRAPHIC COVERAGE AREA**

Environmental Management Consultants, Inc. recognizes our abilities to provide quality environmental services at locations outside of our normal service area. Previously we were an approved consulting firm for the Central and Southern Regions, and successfully completed the first PRGI project in the state. Therefore, we propose to participate in the PRG program for each of the seven regions in the following order of preference: Region 1, Region 2, Region 4, Region 3, Region 5, Region 6 and Region 7. We are willing to make a commitment to establish a satellite office in any region awarded that would be outside our normal service area constraints. We are current members of the IACT and belong to several local Chambers of Commerce and Economic Development agencies throughout the state. These relationships already established will allow for a quick transition to becoming a member of the local community.

Environmental Management Consultants, Inc. participates in the following organizations:

- Downtown Evansville
- Evansville Chamber of Commerce
- Indiana Chamber of Commerce
- Indiana Association of Cities and Towns
- Southwestern Indiana Economic Development Council
- Wesselman Woods Preservation Society
- Indiana Historic Preservation Society
- Evansville Chamber Environmental Committee
- Gibson County Chamber of Commerce
- French Lick Chamber of Commerce
- Many other area chambers and trade associations



## 5. CLIENT REFERENCES

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## **6. OTHER**

### **LIST OF APPENDICES**

Appendix A – Bernardin, Lochmueller and Associates, Inc.

Appendix B – WTH Technology

Appendix C – FC Tucker

Appendix D – Resumes

Appendix E – Letters of Recommendation

Appendix F – PRGI Letter

Appendix G – EMC Consulting Affiliates



Respondent is not aware of any information that may materially impair the firm's ability to provide the level of service required.

We do not have any existing or potential conflict of interest relative to the performance of the contractual services resulting from this Request. We understand that an award will not be made where a conflict of interest exists and that the IFA will determine whether a conflict of interest exists and whether it may reflect negatively on the IFA's selection of an applicant.

We have no knowledge of any past and/or current relevant criminal investigation, pending litigation, regulatory or civil enforcement action.

I certify that all of the information provided herein is accurate and complete, to the best of my knowledge, and that any false or misleading information may result in disqualification of the proposing firm at the IFA's discretion.

Respectfully Submitted,

Tom Effinger

Vice-President



## **APPENDIX A**

BERNARDIN, LOCHMUELLER AND ASSOCIATES, INC.

# **Information for EMC on BLA for Brownsfield Proposal**

## **DRAFT**

Bernardin, Lochmueller and Associates, Inc. (BLA) is pleased to be a subcontractor for Environmental Management Consultants (EMC) as the lead contractor. We have 25 years experience in planning, engineering, environmental (including GIS development), private development and surveying services. Our involvement in the project would be in land use planning activities, and use of our Indiana Statewide GIS database, as needed.

Our business philosophy is to combine sound planning and engineering balanced by a sound understanding of environmental issues to produce practical and cost effective design for our clients. BLA has earned a reputation for completing quality, cost-effective work, on-time and within budget. The firm is committed to using the best resources available to serve its clients. We have experienced continued growth through the years and have offices in Evansville (Corporate), Indianapolis, and West Lafayette in Indiana, and Maryville in Illinois.

Land use planning is an essential element of any long-range plan. For a land use plan to be realistic and able to be implemented, it must be based on a thorough understanding of a community's goals as well as its future population, housing and employment characteristics. BLA has many years of experience in land use planning and in developing computerized models. These models incorporate many procedures used in the planning process including applied earth sciences, demographics, regional economics and development of community sites.

The continued development of cities as a desirable place to live and work needs to follow a well conceived program of community and economic development. BLA has had first-hand experience, not only with the planning of community and economic development variables, but with their implementation too. Our firm can sort through the myriad of variables affecting urban decline or blight and match these causes with the appropriate developmental strategies to stabilize or even reverse these conditions.

BLA has recently completed comprehensive plans or land use controls for Linton, Troy, Chandler, Warrick County, Clark County and Howard County, Indiana. These plans have involved the assessment of properties for appropriate use and reuse and the evaluation of properties for development potential. For decades, members of BLA staff have also been involved in the preparation of subdivisions and site plans for industrial, commercial, residential and recreational uses.

The Private Development Section at BLA develops design plans for such sites in the community. Examples of designs for commercial, industrial and residential properties are strip malls, manufacturing and warehousing sites, and subdivisions. Recreational sites include parks, bicycle and pedestrian trails, and school recreational fields (e.g., football, baseball, and soccer). Designs incorporate intrinsic elements that blend the property into the surrounding neighborhood, and make a statement on clean and beautiful designs that are functional and have local character.

BLA is also a recognized leader in Geographic Information System (GIS). Our most recent product includes the development of the Indiana Statewide Geographic Information System for INDOT. This GIS is comprised of over 200 GIS layers of detailed community, economic, environmental, geological, hazardous material, and water-related information for the entire State of Indiana. The system won 2004 and 2005 Significant Achievement in GIS Awards from ESRI. It is now being used widely by public agencies, academics, and members of the environmental community. Some layers are Brownfield, RCRA, CERCLA, UST, LUST sites, and many layers on public water supplies, wellhead protection areas and much more, some of which are protected by the Homeland Security Act.

BLA has also applied GIS functionality into a wide range of planning projects, and continues to play a foundational role as part of BLA's Street and Road Management System (SRMS®). We also developed the Indiana Statewide Highway Network GIS in TransCAD, which is currently being used by INDOT for long range planning studies. Moreover, we have developed numerous metropolitan street and highway GIS networks as part of our travel demand modeling specialty. All of this information is useful in new site developments within or outside cities.

BLA has continued to be in the forefront of transportation and land use planning since 1979. Our innovative approaches and consistent use of the latest technological advances have been used for State Department of Transportations, Metropolitan Planning Organizations, and communities throughout the United States. We would contribute such knowledge and skills to EMC in their review and evaluation of select Brownfield sites, as needed.

**APPENDIX B**  
**WTH TECHNOLOGY**

**NAME OF FIRM**

WTH Technology – Grants Division  
511 East 4<sup>th</sup> Street  
Huntingburg, IN 47542  
812/ 683-0906 or 877/311-0656  
[dlbennett@wthtechnology.com](mailto:dlbennett@wthtechnology.com)  
[jpruitt@wthtechnology.com](mailto:jpruitt@wthtechnology.com)  
[aperry@wthtechnology.com](mailto:aperry@wthtechnology.com)

WTH Technology is a professional consulting located business in Huntingburg, Indiana. WTH services small communities in planning and implementation of any and all community development projects.

**QUALIFICATIONS, TECHNICAL COMPETENCE/EXPERIENCE and CAPACITY FOR PERFORMANCE:**

WTH Technology, hereafter referred to as WTH, realizes that the tasks necessary to write and manage grant projects are wide-ranging and diverse. Therefore, WTH proposes to provide comprehensive services necessary to efficiently and effectively manage grant programs. A comprehensive approach, as proposed by WTH, will involve development and implementation of policies and procedures for the program activity, coordination of activities with Local, State and Federal agencies, design and operation of a financial management system, maintenance of records required by State and Federal governments, and supervision of contracts awarded in execution of program activities. WTH will additionally act as a liaison between the local unit of government and the funding agencies.

WTH believes that by utilizing the services provided above, it will be able to effectively deal with the complications and problems that may arise in Federal/State grant programs. Problems inherent in this type of program stem from the numerous Federal and State regulations which bind the program. These regulations cover many areas, including labor standards, fair housing, drug free work force, equal opportunity, affirmative action, lead-based paint, flood hazards, uniform relocation and acquisition, financial management, and grant close-out services. WTH is familiar with the state and governmental regulations governing these and other areas and will be able to deal with problems that might arise in these areas. Operation of the program, so that it is in compliance with all requirements is no easy task, but WTH has the expertise, background and knowledge to carry out the task.

WTH believes that its technical approach to operating the grant, namely that of overall grant identification, planning, development, management, labor standards, environmental review and administrative oversight, will allow it to guide the unit of local government in meeting its goals and overcoming the problems herein identified. WTH firmly believes that the key to a successful grant project is not only the expertise in developing and writing the grant but the resultant administration of that particular grant.

Debbie Bennett, Jeff Pruitt, and Aleea Perry are the persons assigned to provide services for grants. Debbie, Jeff and Aleea are familiar with rural areas and local problems and know how to relate to people and are willing and able to work with officials and others to make complete successful grant projects.

**DEBRA L. BENNETT, Certified Grant Administrator, Grants Division Manager**

Debra is in charge of all community development activities, including micro-enterprise, downtown revitalization projects, infrastructure projects, construction of community centers, daycare centers, libraries, fire departments, purchases of fire trucks and housing development and management. Debra brings to the communities over fifteen years experience in planning, development, grants management and program administration. Debra has successfully managed numerous grants from the Indiana Office of Community and Rural Affairs, the Indiana Housing Finance Authority, Community Foundation, FEMA, Community Corrections, Alcoa and Toyota. Debra also provides hands on management regarding all elements of CDBG programs, including environmental assessment, financial management, procurement, labor standards, project progress and monitoring, as well as close out activities regarding community development and housing rehabilitation programs. Debra has worked successfully with all aspects of grant services and is a Certified Grant Administrator with the Indiana Office of Community and Rural Affairs and the Kentucky Department of Local Government. Debra assisted in the development of the current Indiana Grantee Implementation Manual for CFF Grants and has assisted in teaching the IOCRA grant certification training classes for the past nine years.

**JEFF L. PRUITT, Certified Grant Administrator**

Jeff has over fifteen years of experience in community development activities, including downtown revitalization projects, infrastructure projects, construction of community centers, daycare centers, libraries, historic preservation, fire departments, purchases of fire trucks and housing development and management. Jeff also brings to the communities experience in planning, grants management, and program administration. Jeff has successfully managed numerous grants from the Indiana Office of Community and Rural Affairs. Jeff also provides hands on management regarding all elements of CDBG programs, including environmental assessment, financial management, procurement, labor standards, project progress and monitoring, as well as close-out activities regarding community development. Jeff is a certified grant administrator with the Indiana Office of Community and Rural Affairs.

**ALEEA PERRY, Certified Grant Administrator**

Aleea has over three years of experience in community development activities, including downtown revitalization projects, infrastructure projects, construction of community centers, and fire station construction. Aleea also bring to the communities experience in planning and urban development. Aleea is a former employee of the State of Indiana – Community Development Division serving three years as a field liaison for the between Northwest Indiana and the State of Indiana. Aleea also served as Senior Project Manager with the city of Indianapolis, Department of Metropolitan Development.

For a complete listing of projects successfully completed by Debbie, Jeff and Alea see attachments A and B.

## **SCOPE OF SERVICES PROVIDED BY WTH – GRANTS DIVISION**

### **GRANT DEVELOPMENT/WRITING:**

WTH shall be responsible for assisting the Unit of local government in the complete grant development process. This would include, but are not limited to, identification of proposed projects, researching funding sources, conducting public hearings; liaison with engineers, architects, county and state officials; and, preparation and submittal of the grant application.

### **ADMINISTRATION**

- a) Assist the unit of local government in establishing project development, policies and procedures.
- b) Recommend courses of action to the unit of local government for implementation of project activities.
- c) Supervise the grant project, as the unit of local government's representative.
- d) Maintain all records, as required by grant conditions, and forward same to the unit of local government upon completion of the project.
- e) Prepare request for funds and status of funds reports for submission to the funding source, as required.
- f) Assist the unit of local government in maintaining a separate bookkeeping system, as required by funding agencies
- g) Assist the unit of local government in preparing for audits as required by the funding agency and by the Indiana State Board of Accounts.
- h) Other actions that may be necessary from time to time, as determined by the unit of local government and as related to this project.

### **ENVIRONMENTAL REVIEW:**

Conduct all relevant Environmental Review Services required by IOCRA.

- a) Complete and maintain environmental review record
- b) Determine project classification
- c) Send necessary correspondence to all applicable federal, state, and local agencies
- d) Maintain environmental assessment
- e) Complete environmental assessment
- f) Publish notice of conditions release

### **LABOR STANDARDS**

WTH shall perform all services related to Labor Standards activities in accordance with the regulatory requirements described in the grant agreement which includes:

- a) Wage determinations
- b) Contractor Verifications
- c) Employee interviews
- d) Payroll Certifications and Monitoring
- e) Conduct Pre-Bid, Bid Opening and Pre-Construction Meetings

**STATE REFERENCES:**

Indiana Representatives:	Sen. Richard Young (317) 232-9532
	Rep. Russ Stilwell (812) 897-2910
	Sen. Vaneta Becker (812) 473-0123

**COMMUNITY REFERENCES:**

Town of Poseyville:	Bruce Baker (812) 874-2239
Town of Newburgh:	Cynthia Burger (812) 853-3578
County of Warrick:	Roger Emmons (812) 897-6120
County of Gibson	Sherrell Marginet (812) 385-8260

## ATTACHMENT A

### **CURRENT ACTIVE PROJECTS:**

SPENCER COUNTY	Evanston Sewer Construction
VANDEBURGH COUNTY	Knight Township Fire Department Construction
CITY OF OAKLAND CITY	Purchase New Fire Truck
FORT BRANCH-UNION TWP.	Construction New Fire Station
TOWN OF OWENSVILLE	Comprehensive Planning/Zoning
TOWN OF HAUBSTADT	Comprehensive Planning/Zoning
CITY OF CLINTON	Downtown Revitalization
CITY OF CANNELTON	Purchase New Fire Truck
TOWN OF JAMESTOWN	New Fire Station/Community Center
TOWN OF MONTEZUMA	New Community Center
TOWN OF CYNTHIANA	Sewer Rehabilitation Project
COUNTY OF WARRICK	Sewer Construction - Stonehaven
CITY OF MT. VERNON	Water/Sewer Projects/Downtown Project
CITY OF ROCKPORT	Senior Citizens Center/Lifetime Learning Center
GIBSON COUNTY	GCARC Building Acquisition
TOWN OF HARMONY	New Community Center
TOWN OF CARBON	Storm Water Construction Project
TOWN OF PATOKA	Water Project
TOWN OF LYNNVILLE	Sewer Rehabilitation Project
TOWN OF FORT BRANCH	Sewer Rehabilitation Project
WARRICK COUNTY	Community Corrections
VANDEBURGH COUNTY	Sewer Construction
GIBSON COUNTY	Community Center (2)
TOWN OF SOMERVILLE	Fire Station Construction
TOWN OF ELBERFELD	Sewer Rehabilitation
TOWN OF NEWBURGH	Historic Preservation – Ole Towne Hall
TOWN OF NEW HARMONY	Historic Preservation – Ribeyre Gym
TOWN OF CHALMERS	Water Improvements
TOWN OF NEW MARKET	Fire/EMS Construction
TOWN OF CARBON	Stormwater Improvements
TOWN OF MORGANTOWN	Wastewater/Stormwater Improvements
TOWN OF LaCROSSE	Library Construction
TOWN OF SULPHUR SPRINGS	Stormwater Planning
CITY OF BERNE	Utility Master Planning
TOWN OF LAPEL	Stormwater Master Planning
CITY OF TIPTON	Water Improvements

## ATTACHMENT B

### **PAST PROJECTS WRITTEN/ADMINISTERED:**

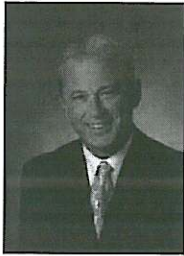
SPENCER COUNTY	Fulda Sewer Construction
TOWN OF BARGERSVILLE	Storm Water Sewer Project
TOWN OF BARGERSVILLE	Park Plan
SHELBY COUNTY	Utility Master Planning
GIBSON COUNTY	Construction of New EMS Station
TOWN OF ELBERFELD	Purchase New Fire Truck
TOWN OF NEW MARKET	Storm Water Sewer Project
COUNTY OF PERRY -	Day Care Facility
COUNTY OF SPENCER -	Lamar Conservancy Sewer Plan
CITY OF BOONVILLE -	Sanitary Sewer Improvement; Downtown Plan
TOWN OF CAMBRIDGE CITY -	Housing Rehabilitation
CITY OF CANNELTON -	New Library; Community Center
TOWN OF CHANDLER-	Comprehensive Plan / Capital Improvements
TOWN OF CROTHERSVILLE -	HOME; Housing Rehab.; Water Improve. -Phase I &II
TOWN OF CYNTHIANA -	HOME, Housing Rehab.; Water Improve., Water Tower, New Fire Station.
TOWN OF DALE -	Head Start; Community Center Renovation
TOWN OF DUBLIN -	HOME; Housing Rehab.; Water Improve.
TOWN OF DUGGER -	Water Plan
TOWN OF ENGLISH -	Infrastructure Phase I & II; Sanitary Sewer Improvement
TOWN OF FORT BRANCH-	New Community Center
TOWN OF FRANCISCO -	Housing Rehabilitation; Fire Station; Fire Truck
TOWN OF GRIFFIN -	Housing Rehabilitation
TOWN OF HAZELTON -	HOME, Housing Rehabilitation, Water Improvement
TOWN OF JAMESTOWN-	Sewer Improvements
TOWN OF KINGSFORD HTS -	HOME; Housing Rehab.; Sanitary Sewer Improvement; Community Center Project
TOWN OF MACKEY -	Housing Rehabilitation
TOWN OF MILTON -	Housing Rehabilitation
TOWN OF MORGANTOWN -	Downtown Revitalization
TOWN OF NEW HARMONY -	Housing Rehabilitation
CITY OF OAKLAND CITY -	HOME; Housing Rehabilitation; MAP Grant; Sewer Planning; Micro-enterprise Assistance Project (Lending to Small Businesses); Sewer Improvements
TOWN OF OWENSVILLE -	Housing Rehabilitation; Water System Improvements
TOWN OF PATOKA -	Water System Improvements
TOWN OF PERSHING/ EAST GERMANTOWN -	Housing Rehabilitation
TOWN OF PINE VILLAGE -	Fire station
TOWN OF POSEYVILLE-	Sewer Improvements; Water System Improvements
CITY OF ROCKPORT -	Housing Rehabilitation, Sanitary Sewer, Phase I; Master Utility Study; Planning/Zoning Update

TOWN OF TENNYSON -	HOME; Housing Rehabilitation; Fire station, Firebrick
CITY OF TELL CITY -	Windy Creek Project; SIRS Daycare, Accent Training Grant
TOWN OF TROY -	Community Center Project; Hoosier Dev. Fund Project
TOWN OF WINSLOW -	Housing Rehabilitation; Water Improvement Phase I & II; Community Center
CITY OF CANNELTON-	DNR Revolving Loan Fund
TOWN OF CHANDLER-	Comprehensive Plan / Capital Improvements; Sewer Expansion
TOWN OF DALE-	Master Utility Study/Planning
TOWN OF JAMESTOWN-	Water Improvement Planning
TOWN OF OWENSVILLE-	Sewer Master Study; Sewer Improvement Planning
TOWN OF TENNYSON-	Water Improvements
TOWN OF BARGERSVILLE-	Storm Water Plan
TOWN OF POSEYVILLE-	Library Improvements
TOWN OF HAUBSTADT-	Sewer Improvements
TOWN OF JAMESTOWN -	Water Construction Project
TOWN OF NEW MARKET -	Water Construction Project
TOWN OF CHANDLER -	Construction of New Community Center
TOWN OF POSEYVILLE -	Community Center Renovation
POSEY COUNTY -	Water Planning Grant - Stewartsville Water Corporation
TOWN OF DALE -	Sewer Planning Grant
WARRICK COUNTY -	Water Improvement Project - Yankeetown Water Authority
CITY OF ROCKPORT -	Water Construction Project
COUNTY OF LAPORTE -	Sr. Citizen Rehab
CITY OF OAKLAND CITY -	Emergency Funding - New Fire Station
TOWN OF NEWBURGH	Sr. Citizen Center Project
TOWN OF ELBERFELD -	Water Construction Project
TOWN OF DALE	Sewer Construction Project
TOWN OF HAUBSTADT -	Water Construction Project
GIBSON COUNTY -	Rehabilitation of GCARC Facility
TOWN OF OWENSVILLE -	Sewer Construction Project
TOWN OF MONTEZUMA -	Planning
TOWN OF NEW HARMONY -	Sewer Construction Project
COUNTY OF WARRICK	Pigeon Township Sewer Construction
FLOYD COUNTY	Senior Citizens Center Project
CITY OF CANNELTON	Construction of New Fire Station

## APPENDIX C

FC TUCKER

land • retail • office • industrial • commercial • investment



**Ken Newcomb Jr.**  
President

## F.C. Tucker Commercial

7820 Eagle Crest Blvd.  
Evansville, In. 47715

Ph 812-473-6677  
Fax 812-473-6684

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[www.FCTuckerCommercial.com](http://www.FCTuckerCommercial.com)



**Kenneth F. Hansen**  
Vice President

### COMPANY HISTORY

Our company was started in 1910 under the name Huber Realty and is the oldest continuous full service real estate company in the Evansville metropolitan area. In 1987, Huber Realty became affiliated with the state's largest independent real estate brokerage firm, The F.C. Tucker Company Inc. of Indianapolis.

In 1992, the company was purchased by Kevin Eastridge and Kathy Briscoe. It continued to grow by opening additional offices in Evansville, Newburgh, Vincennes and New Albany.

With the acquisition of Emge Realty in 2002, the company continued its expansion and now has over 150 agents.

A full time Commercial Department was established in 1992 and the company quickly became the area's leader in commercial sales and leasing.

In 2004, F.C. Tucker Commercial signed a strategic alliance agreement with Turley Martin Tucker, the largest full service Commercial and Industrial Real Estate firm in the eastern half of the United States.

With a growth pattern and the booming commercial and industrial economy of southwest Indiana, this affiliation with Turley Martin Tucker, gives F.C. Tucker Commercial, and our clients, not only the local exposure, but adds regional and national exposure as well.

With offices in Indianapolis, St. Louis, Nashville, Kansas City, Cincinnati, Dayton, and Minneapolis /St. Paul, we now have the backing of over 900 employees and 400 licensed commercial practitioners with over two billion dollars in annual sales. This alliance allows F.C. Tucker Commercial to offer our clients a wider range of services including Auction, Brokerage, Tenant Representation, Property Management and Consulting Services.

If you are a property owner, lender, developer, or investor, our capable, professional team can make your business decisions much easier.

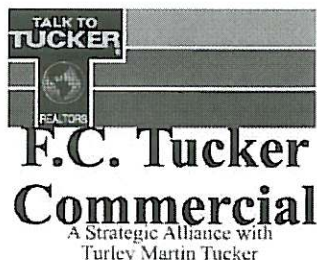
We look forward to the opportunity to service your commercial real estate needs.



**F.C. Tucker  
Commercial**

A Strategic Alliance with  
Turley Martin Tucker

*Ken Newcomb Jr.   Ken Hansen   Drew Platt   Steve Briscoe   Harris Howerton  
Dannetta Hiatt   Rodger Jowers   Aaron Kendall   Steve Parker   Kyle Parker  
Phil Hayes   Gary Bumb   Rick Richardson*



## KEN NEWCOMB, JR.

### Commercial / Industrial Broker

land

retail

office

industrial

commercial

investment

Ken is President and Co-Manager of F.C. Tucker Commercial. He has been active in the commercial, industrial and development business since 1975. After attending Indiana State University and Indiana University, he operated his own business for twenty years. Ken serves as District Four Director of the Indiana Commercial Board of Realtors, and is a member of the Indiana and National Association of Realtors. He has served on the Indiana Association of Realtors Economic Development Advisory Board, the Indiana Commercial Board of Realtors Professional Standards Committee, and is a member of the Evansville Industrial Foundation.

Ken Newcomb Jr. was named Indiana Commercial Realtor of the Year at the Indiana Commercial Board of Realtors Annual Conference held in Indianapolis on October 7, 2005. The following is a partial list of companies that have been served by Ken:

Airport Development Corp.	George Koch & Sons
Amax Coal Co.	G.I. Tech Group
Amoco Oil Co.	Johnson Oil Co.
Andrews Oil Co.	Kentucky Fried Chicken
Atria Corp.	Kight Lumber
Aztar Corp.	Morris Trading Corp.
Bentley Forbes	Ohio Valley National Bank
The Boatman	Old National Bank
CSX Railroad	Rally's
Dunn Hospitality Group	Ramsey Companies
Elston-Richards Corp.	Showplace Cinemas, Inc.
Epi-Hab	Sonic
Evansville Teachers Federal	Southern Bells, Inc.
Credit Union	Station Casinos
Evansville Titles	Taco Bell
Fairfield Inns	Thornton Oil Co.
Ferguson Enterprises	Toyota
Flair Molded Plastics	T.O.F. Inc.
Ford Motor Company	Vencor
Furrows	Warehousing Services, Inc.
Gen-Corp-ILPEA	West Irving Die Casting

## APPENDIX D

### RESUMES

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## **R. Thomas Effinger, CHMM**

Vice-President, Environmental Management Consultants, Inc.

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### **QUALIFICATIONS**

Professional registration as a master's level Certified Hazardous Materials Manager with over fifteen years experience in management and supervisory positions. RAB Certified Environmental Management Systems Auditor (ISO 14000) and professional registration with the World Safety Organization - Certified Safety Specialist. Career accomplishments include start-up of a complete analytical laboratory with overall management responsibility for a forty-employee commercial environmental laboratory and corporate projects manager for a national analytical testing laboratory. Experienced in conducting solid and hazardous waste management assessments; permitting; site assessments; industrial audits; emergency response activities and advising clients on OSHA, EPA, and DOT regulations.

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### **EXPERIENCE**

**1992**                    **ENVIRONMENTAL MANAGEMENT CONSULTANTS, INC.**  
Evansville, Indiana

**Director of Industrial Compliance**

Responsibilities include all aspects of industrial compliance with USEPA regulations including but not limited to: CAA, CWA, RCRA, TSCA, FIFRA, SARA Title III, and OSHA. Duties include performing and reporting environmental compliance audits and assessments of industrial and municipal operations; preparation of written operating plans and permit applications; general consultation on environmental compliance; permitting and reporting issues; acting in the capacity of liaison between industrial clients and regulatory authorities; and providing professional environmental and safety training.

**1991-1992**           **DONAN ENGINEERING COMPANY, INC.**  
Evansville, Indiana

**Environmental Scientist/Project Manager**

Responsible for conducting solid and hazardous waste management assessments involving landfills, site assessments, industrial waste, emergency response actions, Corrective Action Plan development, Remedial Investigation/Feasibility Studies, air pollution, and water contamination studies.

**1990 - 1991     STANDARD LABORATORIES, INC.**  
Evansville, Indiana

**Corporate Project Manager**

Managed corporate projects including: writing Chemical Hygiene Plan for forty laboratory locations around the nation, standardizing Standard Operating Procedures for laboratory analysis and chemical handling, and training on proper laboratory procedures and techniques.

**1985 - 1990     CORE LABORATORIES, INC.**  
Evansville, Indiana

**1988 - 1990     Laboratory Manager**

Responsible for profit and loss, budgeting, equipment acquisition, client correspondence. Implement training and corporate policy administration. Install laboratory information management system (LIMS). Provide consultation, sampling and analysis in the environmental disciplines of RCRA, Solid Waste, NPDES, Air and Groundwater. Develop and implement laboratory waste minimization and segregation procedures.

**1985 - 1988     Laboratory Supervisor**

Supervision of 10 employee coal sampling and analysis laboratory. Supervised the start-up of the facility including construction of building, equipment purchasing and set-up.

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## EDUCATION

**INDIANA STATE UNIVERSITY, 1981**

**Bachelor of Science Degree, Biology/Chemistry**

**Professional Training:**

Certified Hazardous Material Manager, Master Level (24916)  
RAB Certified ISO 14000 Environmental Management System Lead Auditor (E052224)  
World Safety Organization - Certified Safety Specialist  
Phillip Crosby Quality Improvement Process Management College  
Hazardous Waste Site Operation & Emergency Response Training  
Hazardous Waste Site Supervisory Level Training  
Certified Hazardous Material Technician - NFPA 472  
Lead Based Paint Detection and Abatement Training  
Indiana Accredited Asbestos Building Inspector  
CPR, Basic Life Support Provider B

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## PROFESSIONAL AFFILIATIONS

Institute of Hazardous Materials Management  
American Society for Testing and Materials  
Local Emergency Planning Committee (LEPC)  
Evansville/Vanderburgh County Emergency Management Agency

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## **Matthew Morton**

**Project Manager, Environmental Management Consultants, Inc.**

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### **QUALIFICATIONS**

Experienced in conducting solid and hazardous waste management assessments, permitting, industrial audits, emergency response activities, Phase I Site Assessments, Phase II Limited Subsurface Investigations, UST removals and closures, corrective action design and implementation, risk management and advising clients on OSHA, EPA, and DOT regulations.

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### **EXPERIENCE**

**2002-Present      ENVIRONMENTAL MANAGEMENT CONSULTANTS, INC.**  
**Evansville, Indiana**

**Project Manager**

Responsibilities include all aspects of environmental project management and industrial compliance with USEPA regulations. Duties include: performing environmental site assessments and subsurface investigations, UST removals, closure plans and report writing, site bio-remediation plans, compliance audits and assessments of industrial and municipal operations; preparation of written operating plans and permit applications; general consultation on environmental compliance; permitting and reporting issues; and acting in the capacity of liaison between industrial clients and regulatory authorities.

**2001                NUTEC SUPPLY, INCORPORATED**  
**Indianapolis, Indiana**

**Territory Manager**

Responsible for market development in Southwestern Indiana and Northwestern Kentucky in the field of erosion and sediment control, as well as soil reinforcement and stabilization products. Core products included erosion control blankets, geotextile fabrics, geogrids, gabion baskets, modular block retaining wall systems and geocells.

**1998-2000**

**ENVIRONMENTAL CONSULTING AND ENGINEERING CO., INC.**  
Evansville, Indiana

**Environmental Scientist/Project Manager**

Responsible for completing environmental site assessments that entailed site reconnaissance, historical and record research, interviewing and technical reading and writing. Conducted subsurface investigations that included operation of subsurface drilling equipment, sampling of soil and groundwater, and understanding state and federal regulations on contaminants. Assisted in emergency response and cleanup efforts involving hazardous materials and waste.

**1998**

**HOOSIER STAMPING AND MANUFACTURING CO., INC.**  
Evansville, Indiana

**Finishing Manager**

Responsible for operation and management of painting line plant at wheel manufacturing company. Accountable for efficient production, cost minimization and product quality, and the supervision of up to 12 assembly line employees.

**1994-1998**

**KOESTER ENVIRONMENTAL SERVICES, INC.**  
Evansville, Indiana

**Environmental Scientist**

Responsible for completing environmental site assessments that entailed site reconnaissance, historical and record research, interviewing and technical reading and writing. Conducted subsurface site investigations, including operation of subsurface drilling equipment, sampling of soil and groundwater, and understanding state and federal regulations on contaminants. Assisted in underground storage tank removals and remediation of contamination associated with each. Member of the emergency response and cleanup team involving hazardous materials and waste.

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## **EDUCATION**

**INDIANA UNIVERSITY – Bloomington, IN**

**Bachelor of Science – Public Affairs**

Graduated from the School of Public Environmental Affairs, with a concentration in Environmental Science and Management

**Professional Training**

- Hazardous Waste Operator
- Indiana State Building Inspector for Asbestos

**Professional Education/Seminars**

- Indiana State Real Estate Salesperson License Holder
- CPR and First-Aid Trained

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**PROFESSIONAL AFFILIATIONS**

- Young Evansville Professionals Club
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## **Mark E. Phillips, P.G.**

Geologist, Environmental Management Consultants, Inc.

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### **QUALIFICATIONS**

Registration as a licensed Professional Geologist in Indiana and Illinois. Over 25 years experience in the mining, environmental and archeological fields. Specialties include geological modeling, geological site assessments and mineral evaluations. Other responsibilities include project management, borehole program design and geological data evaluation.

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### **EXPERIENCE**

2005-present **ENVIRONMENTAL MANAGEMENT CONSULTANTS INC.**  
Evansville, Indiana

#### **Geologist**

Project Manager on numerous Phase I and Phase II Environmental Assessments, leaking underground storage tank removals and remediations, brownfield site investigations and remediations.

1998-2005 **APPLIED ENVIRONMENTAL TECHNOLOGIES**  
Carmi, Illinois

#### **Geologist**

Performed Phase I and Phase II Environmental Assessments, leaking underground storage tank removals and remediations, brownfield site investigations and remediations.

1991-1998 **AMAX COAL COMPANY**  
Indianapolis, Indiana

#### **Consultant**

Field geology, geophysical logging, log interpretation, rock mechanics testing, pump and packer testing, and groundwater construction and monitoring. (Detailed list of projects and locations available upon request.)

1988-1991     **DEPARTMENT OF MINING ENGINEERING, SOUTHERN ILLINOIS  
UNIVERSITY**  
Carbondale, Illinois

**Researcher: Geotechnical Lab**

Conduct tests and coordinate lab work, supervise three lab technicians, prepare reports.

**Geological Researcher**

Assist in field interpretation of geological features and their effect on mining conditions, conduct literature searches, prepare reports.

**Surveyor**

Coordinate surface subsidence monitoring surveys.

1980-1987     **AMERICAN RESOURCES GROUP, LTD.**  
Carbondale, Illinois

**Cartographer/Archaeological Technician**

Conduct surveying and supervise field-mapping operation, which included contour mapping, grid layout and excavation location.

**Environmental Technician**

Groundwater well monitoring and water sampling.

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**RELATED SKILLS/EXPERIENCE**

- Stability assessments and data collection in numerous underground coal mines
  - Core descriptions, correlations and geological modeling
  - Aerial photo and satellite image interpretation, private pilots license
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## EDUCATION

1970-1973     Southern Illinois University, Carbondale

1984-1987     Bachelor of Science, Geology, Southern Illinois University, Carbondale  
GPA in Major 4.0

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## HONORS

American Petroleum Institute, Illinois Basin Chapter, Scholarship  
Field Camp Scholarship from Shell Foundation  
Field Camp Scholarship, Stanley Harris Fund, Dept. of Geology, SIUC  
Sun Exploration and Production Company Scholarship  
Selected NAGT-USGS Cooperative Summer Field Training Program

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## PUBLICATIONS

Chugh, Y.P., M. Phillips, K. Chandrashekhar, A. Atri, S.E. Haq, with contributions by P.J. DeMaris and H.H. Damberger, 1990, Identification of Mine Characteristics, Conditions, and Procedures for Design of Stable Partial Extraction Room-and-Pillar Mines in the Herrin (No. 6) Coal Seam in Illinois: Final Report for the Illinois Mine Subsidence Research Program, 117 p.

Chugh, Y.P., V.K. Singh, M. Phillips, M.K. Mishra, R. Iyer, with Contributions by P.J. DeMaris and H.H. Damberger, 1992, Identification of Mine Characteristics, Conditions, and Procedures for Design of Stable Partial Extraction Room-and-Pillar mines in the Springfield (No. 5) Coal Seam in Illinois: Final Report for the Illinois Mine Subsidence Research Program, 108 p.

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## **Tracy M. McConnell, PE**

**Project Manager, Environmental Management Consultants, Inc.**

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### **QUALIFICATIONS**

Experienced in conducting solid and hazardous waste management assessments, permitting, industrial audits, emergency response activities, Phase I Site Assessments, Phase II Limited Subsurface Investigations, UST removals and closures, corrective action design and implementation, risk management and advising clients on OSHA, EPA, and DOT regulations.

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### **EXPERIENCE**

**2001**                      **ENVIRONMENTAL MANAGEMENT CONSULTANTS, INC.**  
Evansville, Indiana

**Project Manager**

Responsibilities include all aspects of environmental project management and industrial compliance with USEPA regulations, including but not limited to: CAA, CWA, RCRA, TSCA, FIFRA, SARA Title III, and OSHA. Duties include: performing environmental site assessments and limited subsurface investigations, UST removals, closure plans and report writing, site bio-remediation plans, compliance audits and assessments of industrial and municipal operations; preparation of written operating plans and permit applications; general consultation on environmental compliance; permitting and reporting issues; and acting in the capacity of liaison between industrial clients and regulatory authorities.

**1997-2001**                **CBM ENVIRONMENTAL SERVICES, INC.**  
Frankfort, Kentucky

**Project Manager**

Responsibilities include permitting for DOT, Corps of Engineers, and various local and state governmental agencies. Primary responsibility for conceptual design and implementation of Corrective Action Plans. Remedial designs include air sparge/soil vapor extraction systems, pump and treat systems, including dual-phase and vacuum enhanced extraction, enhanced bioremediation using an oxygen releasing compound and microbe injections, and over-excavation. Additional duties include monitoring the performance of existing treatment systems and when necessary, recommending changes to maximize system performance. Worked on UST projects in KY, NC SC and FL.

Completed Risk Management Plans, SARA Title III (Tier II and TRI) reports, Spill Prevention, Countermeasure and Control Plans, Groundwater Protection Plans, Best Management Practices Plans, air emission inventories, indoor air quality evaluations, and Phase I and II Environmental Site Assessments. The above work included direct client contact; supervision of technicians, field geologist and draftsmen; project coordination with construction; specification writing; cost estimating; report preparation and field inspections.

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## **EDUCATION**

### **PURDUE UNVIERSITY**

**Master of Science – Environmental Engineering, 1996**

**Bachelor of Science – Chemical Engineering, 1994**

### **Professional Training**

- Kentucky Professional Engineer #22650
- Indiana Professional Engineer #10201290
- Certified Contractor #1306 – Office of the Petroleum Storage Tank Environmental Assurance Fund, Kentucky
- 40-Hour Hazardous Waste Site Worker Certification
- Formerly Held Visible Emission Evaluation Certification, Kentucky

### **Professional Education/Seminars**

- Advanced Technologies for Enhancing Natural Attenuation using Oxygen Release Compound and Hydrogen Release Compound
- Petroleum Hydrocarbons and Organic Chemicals in Ground Water: Prevention, Detection, and Remediation
- Continuing Environmental Compliance Education: Water Quality Management Seminar
- Regulations, Sampling and Monitoring and Leak Detection for Water System Professionals
- Indoor Air Quality with Hands-On Training in Making Indoor Air Quality measurements
- Title V Update
- Florida Remediation Conference
- MTBE Remediation Seminar

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## **PROFESSIONAL AFFILIATIONS**

- National Ground Water Association
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**Kimberly Ruth Dyehouse**  
**Project Manager, Environmental Management Consultants, Inc.**

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## **QUALIFICATIONS**

Experienced in problem solving and technical skills. Independently conducts asbestos, lead based paint, mold and a variety of indoor air quality (IAQ) inspections. Prepares technical specifications and project designs for asbestos abatement for Asbestos Hazardous Emergency Response Act (AHERA) schools, commercial and industrial facilities. Working knowledge of Intellicad 2000 (drafting) software. Trained analyst using Phase Contrast Microscopy methodology. Highly productive employee and a communicator with a "team" enthusiasm for getting the job done.

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## **EXPERIENCE**

**1997- ENVIRONMENTAL MANAGEMENT CONSULTANTS, INC.**  
**Evansville, Indiana**

**Project Manager/Environmental Technician**

Responsible for consulting on issues regarding mold, lead, asbestos and a variety of IAQ issues. Conducts inspections, collects bulk and air sample analysis for asbestos using Phase Contrast Microscopy methodology. Develops and maintains written chain of custody to insure data defensibility and quality. Participates in the Proficiency Analytical Testing (PAT) program for asbestos analysis. Conducts instrument calibration and maintenance. Provides monitoring for indoor air quality issues. Experienced in training asbestos workers, supervisors and contractors for State accreditation. Conducts Phase I Environmental Site Assessments, provides technical support for drilling and remediation projects. Develops and prepares technical reports, incorporating analytical data, prepares findings and recommendations.

**1992-1997 DAVE MORLOCK FARMS**  
**Wadesville, Indiana**

**Co-Owner and laborer**

Responsible for various decisions and calculations over hybrids, planting, harvesting, and marketing of crops. Also involved in soil and water sampling.

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## EDUCATION

### **UNIVERSITY OF SOUTHERN INDIANA, Evansville, Indiana**

Currently completing coursework for Bachelors Degree in General Studies with a concentration on science and management

### **IVY TECH STATE COLLEGE, Evansville, Indiana**

Associates Degree in Applied Science - Office Automation Specialty, Technical Certificate in Computer Programming

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## PROFESSIONAL TRAINING

Indiana Certified AHERA Project Designer

Indiana Certified Asbestos Abatement Supervisor

Indiana Certified Asbestos Inspector

Indiana Certified Lead Inspector

Illinois Certified Air Sampling Professional

Kentucky Certified Asbestos Inspector

Kentucky Certified Asbestos Project Designer

NIOSH 582 Asbestos Analyst

Completed the American Indoor Air Quality Council's *Certified Microbial Remediation Supervisor Course*

Completed the US EPA Mold Remediation Course for Environmental and Public Health Professionals.

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## **APPENDIX E**

### **LETTERS OF RECOMMENDATION**



**Southwest Indiana Development Council (SWIDC)**  
**Center of the Nation's Population, Centered on Your Success**

8600 University Blvd. Evansville, IN 47712 TEL: 812-465-7067 FAX: 812-465-7061 E-mail: [Info@swidc.org](mailto:Info@swidc.org)

November 1, 2006

Indiana Finance Authority  
One North Capitol, Suite 900  
Indianapolis, IN 46204

Re: Environmental Management Consultants

Dear Sirs:

Please consider this letter of recommendation<sup>®</sup> for Environmental Management Consultants (EMC). Our organization provides networking opportunities for economic developers in 14 counties in southwest Indiana and EMC has been an active member of SWIDC since 2004. With their participation, the company's representatives have kept our organization informed of grant opportunities available for environmental issues.

Environmental Management Consultants is well respected in the community. SWIDC has complete confidence in their ability to provide quality and reliable service. In my opinion, EMC is our region's best opportunity for redevelopment and growth in environmentally challenged sites.

Sincerely,

Dorrie M. LoBue, CEcD  
Chairperson

**Indiana Finance Authority  
c/o Indiana Brownfields Program  
Sara Westrick Corbin  
100 North Senate Avenue  
Room 1275  
Indianapolis, IN 46204**

RE: Environmental Management Consultants, Inc  
427 Main Street  
Evansville, IN 47708

Sara:

As you know I did a lot of Environmental work with the above firm while I was Mayor of Tell City. I was very pleased with their job performance and the way they approached each project. They take a very professional interest in how they complete each project. They have been helping Cities and Towns in Southern Indiana for several years and I believe you will find that they can be counted on to do the job right. I hope they will continue to be involved in the PRGI program.

Bill Goffinet  
126 12<sup>th</sup> St.  
Tell City, IN 47586



# *Office of the Mayor*

*Rosemary L. Knowles*

October 27, 2006

Indiana Financing Authority  
100 North Senate Avenue  
Room 1275  
Indianapolis, Indiana 46204

To whom it may concern:

I have worked with Dan Moore on several environment projects. He is professional and offers a variety of expertise. Dan has been creative and utilizes all of the staff at Environmental Management Consultants, using each particular expert of his or her field to develop the best functional solution. I would encourage anyone who needs help with such project to utilize the knowledge and professionalism of Dan Moore and Environmental Management Consultants. If you have any questions, please contact my office 812-838-5576.

Sincerely,

A handwritten signature in dark ink, reading "Rosemary L. Knowles". The signature is fluid and cursive, with a large initial "R".

Rosemary L. Knowles  
Mayor

RLK/vp

520 Main Street  
City Hall Annex

Mount Vernon, IN 47620

(812) 838-5576 Fax (812) 838-8704

[www.mountvernon.in.gov](http://www.mountvernon.in.gov)

[mayorknowles@insightbb.com](mailto:mayorknowles@insightbb.com)





# CITY OF EVANSVILLE

ONE N.W. MARTIN LUTHER KING, JR. BLVD. • ROOM 302  
EVANSVILLE, INDIANA 47708-1833

(812) 436-4962

FAX (812) 436-4966

OFFICE OF THE MAYOR  
JONATHAN WEINZAPFEL

October 27, 2006

Indiana Finance Authority  
100 North Senate Avenue, Room 1275  
Indianapolis, IN 46204

## PETROLEUM REMEDIATION GRANT IN REGION ONE

I would like to offer my wholehearted endorsement of Environmental Management Consultants, Inc. Since their inception in 1988, they have been the local leader in the environmental field. I have also noted their civic involvement and the charitable organizations they support as well as their efforts to educate our community in environmental matters.

I cannot think of a firm better positioned to be the approved consultant for the Petroleum Remediation Grant in Region One. I appreciate your consideration of my endorsement, and feel confident that Environmental Management Consultants, Inc. can facilitate aggressive remediation and redevelopment in my city.

Sincerely,

A handwritten signature in black ink, appearing to read "Jonathan Weinzapfel", is written over the printed name.

Jonathan Weinzapfel  
Mayor

## APPENDIX F

### PRGI LETTER

December 18, 2002

Mr. Tom Effinger, CHMM  
Environmental Management Consultants, Inc.  
427 Main Street  
Evansville, IN 47708

Dear Mr. Effinger:

Thank you for participating in the Indiana Development Finance Authority's (IDFA) recent qualifying process established for environmental consultants interested in the Petroleum Remediation Grant Incentive (PRGI).

After evaluating your RFQ response and subsequent submittal of December 12, 2002, we have determined that Environmental Management Consultants, Inc. is qualified to serve as an environmental consultant for PRGI projects and will be placed in a pool of qualified firms. Environmental Management Consultants will accordingly be allowed to submit competitive remediation bids on projects that are advanced to the Bid Stage of the PRGI application process. Please note that your firm will be allowed to pursue projects that are located in the Central and South PRGI administrative regions, per your designation in your response.

This letter does not designate your firm as the environmental consultant for any specific project. These specific designations will be made based on a number of factors, including the competitiveness of your firm's overall remediation bid.

Thank you for participating in the RFQ process, as we learned a great deal about your firm. We look forward to your participation in the PRGI and to the successful redevelopment of brownfields in Indiana!

Sincerely,

  
W. Calvin Kelly  
Deputy Director

cc: Gabriele Hauer, IDEM



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live.*

Joseph E. Kernan  
Governor

Lori F. Kaplan  
Commissioner

100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
(317)232-8603  
(800)451-6027  
[www.in.gov/idem](http://www.in.gov/idem)

September 1, 2004

Carolyn Rusk  
City of Evansville  
Department of Metropolitan Development  
306 Civic Center Complex  
1 NW MLK Jr. Blvd  
Evansville, Indiana 47708-1869

Dear Ms. Rusk:

Re: No Further Action  
Petroleum Remediation Grant  
Incentive Final Report  
Former Kenny Kent Chevrolet

The Indiana Department of Environmental Management (IDEM) Brownfields Program staff has reviewed the *Petroleum Remediation Grant Incentive Final Report* submitted by Environmental Management Consultants, Inc. dated July 30, 2004 for the Former Kenny Kent Chevrolet Facility (Site) located in Evansville, Indiana. This remediation was funded by the Petroleum Remediation Grant Incentive to further redevelopment of brownfields in the City of Evansville.

The Former Kenny Kent Chevrolet facility is located at 109 NW Second Street in Evansville and is approximately 1.2 acres in size. The Site has been utilized as various Commercial enterprises over the past 75 years. The most recent use of the subject property from approximately 1960 until 1995 was an auto dealership. The contamination associated with this Site is petroleum products from underground storage tanks. Remediation by removal of contaminated soil was performed on June 14 and 15, 2004.

Results of confirmatory soil laboratory analysis indicate that total petroleum hydrocarbons (TPH) are below IDEM's cleanup criteria of 100 parts per million (ppm) in area of concern (AOC) #1 and below detection limits for IDEM's January 2004 Risk Integrated System of Closure (RISC) petroleum chemicals of concern in AOC #2 and AOC #3.

Based on the Documentation provided, no further action is required at this time. This determination is based upon the review of documentation presented to IDEM. If additional information is subsequently provided, then IDEM reserves the right to modify the determination as the situation may warrant.

If you have any questions or comments regarding this letter or would like to notify IDEM of any additional information about the Site, please contact, Andrea Robertson at 317-234-0968 or 1-800-451-6027 extension 4-0968.

Sincerely,

Gabriele Hauer, Chief  
Brownfields Program  
Office of Land Quality



**Lt. Governor Katherine L. Davis**  
Secretary Manager

March 9, 2004

Ms. Carolyn Rusk  
Brownsfield Coordinator, City of Evansville  
306 Civic Center Complex  
1 NW MLK Blvd  
Evansville, Indiana 47708

RE: Wire Transmittal – PRGI Payment #1, Kenny Kent Brownfield Project

Dear Ms. Rusk:

We have received July 9, 2004 Progress Milestone Report (“Progress Report”) Submitted by Environmental Management Consultants, Inc. (EMC) regarding the tank removal at the Former Kenny Kent Auto Dealership, IDFA and IDEM staff have reviewed the report and IDEM has determined that the report adequately demonstrates successful implementation of the remediation remedy at the site, namely the tank removals and soil excavation/disposal activities. Although we have not yet received the Final Closure Report, within which we expect to find additional documentation concerning the remediation activities, there is sufficient documentation in the Progress Report evidencing reduction of contamination to closure levels.

Based on the forgoing, and in accordance with the PFP Schedule found as Exhibit E to the PRGI Grant Agreement, I have authorized a wire transfer for \$58,500 payable to the City of Evansville, pursuant to your wiring instructions. The remaining 10% of the grant award will be disbursed only after IDFA and IDEM have received copies of the final report, determined that said report and the activities described therein are acceptable, and have issued a No Further Action letter regarding the petroleum areas of concern at the site.

Congratulations on the quick completion of field activities. When you receive the wire payment, please contact Carla Phelps (IDFA) at 317-233-4332 to confirm receipt. Please do not hesitate to call me if you have questions and we look forward to receiving the Final Closure Report in the near future.

Sincerely,

W. Calvin Kelly  
Deputy Director

Enclosure

Cc: Sara Westrick, IDFA  
Andrea Robertson, IDEM (via Bravelo)  
Tom Effinger, EMC (via Bravelo)

## **APPENDIX G**

### **EMC CONSULTING AFFILIATES**

## *Environmental Management Consultants, Inc.* **CONSULTING AFFILIATES**

Environmental Management Consultants, Inc. is also a part of the tri-state's premier environmental consulting group, which includes Air Quality Services (AQS), Elite Environmental Services, Inc. and the Consortium for Environmental Risk Management, LLC (CERM). Through our affiliates, EMC is able to provide the following services for our clients: Source Emissions Testing, Ambient Air Monitoring, Dispersion Modeling, Air Permit Development & Consulting, Opacity Filter Certification, Continuous Emission Monitoring System Services, Asbestos Abatement, Lead-Based Paint Removal, Industrial Cleaning, 24 Hour Emergency Response, Vac Truck, New Chemical Development, Premanufacture Notice (PMN) Preparation, Submission, Environmental Toxicology and Review, Import/Export Requirements, Support and Compliance with International regulations for new and existing chemicals including the European Union, Japan, and Canada.



(812) 424-7768  
(270) 683-9677  
Fax (812) 424-7797  
[www.emcevv.com](http://www.emcevv.com)

- Phase I ESA
- Phase II ESA
- Industrial Hygiene Services
- Asbestos Related Services
- UST Services
- Remediation
- Training



(812) 452-4785  
Fax (812) 452-4786  
[www.aqsllc.net](http://www.aqsllc.net)

- Source Emissions Testing
- Ambient Air Monitoring
- Air Permit Development & Consulting
- Dispersion Modeling
- Continuous Emission Monitoring System Services
- Opacity Filter Certification



(812) 424-7441  
Fax (812) 424-7494  
[www.callelite.com](http://www.callelite.com)

- Asbestos Abatement
- Lead-Based Paint Removal
- Industrial Cleaning, Including High Pressure Water Jet Applications
- 24 Hour Emergency Response



(812) 452-4778  
Fax (812) 424-7797  
[www.cermonline.com](http://www.cermonline.com)

- New Chemical Development
- Premanufacture Notice (PMN) Preparation, Submission, and Review
- Environmental Toxicology
- Support and Compliance with International Regulations for New and Existing Chemicals including the European Union, Japan, and Canada
- Import/Export Requirements

# CAPABILITIES AND PRIMARY SERVICE AREAS

## Asbestos

- ☐ Building Inspections  
(AHERA, NESHAP, OSHA 1926.1101)
- ☐ Emergency Response Actions
- ☐ Abatement Cost Estimates
- ☐ Asbestos Management Plans
- ☐ Asbestos Project Monitoring
- ☐ Abatement Design & Contract Specifications
- ☐ Air Sampling & Analysis
- ☐ Bulk Sampling & Analysis

## Industrial Hygiene/Indoor Air Quality

- ☐ Microbial assessments & bio-contamination control
- ☐ Sick Building Syndrome
  - *Inspection & Testing*
- ☐ Industrial Hygiene Monitoring

## Environmental Site Assessments

### *ASTM Protocols*

- ☐ Phase I Environmental Site Assessments
- ☐ Phase II Initial Site Characterizations
- ☐ Phase III Site Cleanups & Corrective Action

## Training

### *U.S. EPA Approved Training*

- ☐ Asbestos
  - *AHERA Awareness & Maintenance Worker*
  - *Abatement Worker*
  - *Inspector*
  - *Supervisor/Contractor*
- ☐ OSHA - 29 CFR 1910.120
  - *HAZWOPER - 8, 24, 40 Hr*
  - *Employee Right-To-Know*
  - *Confined Space Entry*

## Industrial Compliance

- ☐ Permitting
- ☐ SARA Title III Reporting
- ☐ Storm Water Discharge
- ☐ Hazard Communication Programs
- ☐ Industrial Audits
- ☐ Waste Sampling, Analysis, Permitting & Disposal, Waste Minimization

- ☐ Risk Management Plans
- ☐ Leak Detection & Repair (LDAR)
- ☐ Under/Above Ground Storage Tanks
- ☐ Certified UST Removers
- ☐ Spill Prevention, Control & Countermeasure
- ☐ Leak Detection
  - *Soil Vapor Tests*
  - *Groundwater Monitoring*
  - *Tank Tightness Testing*
- ☐ Site Characterizations
- ☐ Remedial Investigation/Feasibility Studies
- ☐ Corrective Action Plans/Pilot Studies
- ☐ Remediation Cleanup
  - *Soil*
  - *Groundwater*

## Water/Wastewater

- ☐ Sampling & Chemical Analysis
  - *NPDES Permitting*
  - *Wastewater*
  - *Industrial Pretreatment*
- ☐ Groundwater
  - *Assessment/Modeling*
  - *Well Development & Monitoring*
  - *Risk Assessments*
  - *Landfill Statistical Evaluation*
- ☐ Impoundment & Channel Design
- ☐ Waste Water Treatment Systems Design

## Lead-Based Paint

- ☐ Inspections
- ☐ Testing & Risk Assessments
- ☐ Abatement Design & Contract Specifications
- ☐ Abatement Monitoring

## Other Consulting Services

- ☐ Building Demolition
- ☐ Regulatory Interpretation/Updates
- ☐ Regulatory & Corporate Liaison
- ☐ Wetlands Delineation
- ☐ Expert Testimony
- ☐ Floodway Permits